



USCDornsife  
*Equity Research Institute*

# A Call to Invest in Community Power

FULL REPORT

**Lessons from 10 Years of California Climate  
Investments for the State and the Nation**



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#### **A note on selected terms used in this report**

- We use “Disadvantaged Communities” as a technical term defined by California Environmental Protection Agency (CalEPA) using CalEnviroScreen which uses criteria relevant to pollution burdens and socioeconomic conditions in a place, and also includes federally recognized tribal areas.
- The Greenhouse Gas Reduction Fund (GGRF) referenced in this report refers to the pool of funding that represents the State’s portion of California’s cap-and-trade revenue, not the GGRF program established through funding from the federal Inflation Reduction Act.
- Please see Appendix E for more notes on terminology including our use of Latinx and the language we use to refer to Tribal Nations and Indigenous communities.



# INTRODUCTION

California Climate Investments (CCI) is the nation's longest running dedicated portfolio of climate investments. Funded by the State's portion of cap-and-trade revenue dollars, CCI represents a suite of programs and projects ranging from clean energy, transportation, urban greening, transit-oriented housing development, to land conservation and forest management activities.<sup>1</sup>

After nearly a decade and close to \$10 billion implemented through projects,<sup>2</sup> this report, *A Call to Invest in Community Power Lessons from 10 Years of California Climate Investments for the State and the Nation*, seeks to answer the question—is CCI delivering on its promise? Does it drive benefits to communities that are the most vulnerable to pollution, have the fewest resources to adapt to climate change, and the least political power to attract these dollars? Do these communities feel the impact of these investments? We strive to answer these questions, particularly in light of unprecedented federal funding for climate investments through the Inflation Reduction Act (IRA) of 2022 and the Infrastructure Investment and Jobs Act (IIJA) of 2021, and the Biden administration's Justice40 Initiative which commitments to delivering at least 40% of benefits from federal climate and energy investments to Disadvantaged Communities.<sup>3</sup>

Overall, we find that California Climate Investments includes aspects that are excellent with regard to equity, areas where delivering on equity can be improved, and a small number of places where the promise of equity has been derailed. The majority of implemented CCI dollars (73% of the \$9.2 billion implemented as of November 2022<sup>4</sup>) are landing in and providing some benefit to Priority Populations—DACs, low-income communities, and low-income households—by being located within these communities and meeting CARB's "benefits" checklist. DACs have received over \$4.2 billion (nearly 47% of the \$9.2 billion implemented). However, areas for improvement still remain in ensuring that dollars are going towards community-driven, desired projects; that community members are

aware of and feeling the impacts of the funding landing in their neighborhoods; that environmental justice organizations and community groups have the agency to influence funding decisions; that undesired project types and programs are not greenlit; and that information on implementation outcomes are easily accessible and usable at a localized scale, among others.

Ultimately, we find that a key secret to CCI's success is the strong environmental justice ecosystem. Composed of local community based organizations, statewide policy advocacy groups, research groups, alliances and coalitions and more, this broad ecosystem has been an active force in mobilizing pressure to steer cap-and-trade revenues towards priority communities, to maintain funding for the most important programs, and to shape programs in ways that center frontline communities.

## Why Equity Matters for Environmental and Climate Policy

The driving force of climate change is rooted in our present extractive economy, which turns Earth and its resources into a commodity to be plundered. We've learned from Indigenous traditions that the planet is more akin to a higher power to be revered or a family member to love and keep whole. In the U.S., our relationship to the Earth quickly became about domineering it through Westward expansion and treating it as a reserve of valuable resources and commons for dumping our waste.<sup>5</sup>

And now we have growing evidence that inequality and environmental degradation are connected—something communities of color and Indigenous communities have long recognized. Redlining, for example, was the practice of drawing red lines around communities of color—especially Black communities—to indicate neighborhoods that banks considered “risky” to provide financial services to, systemically barring communities of color from the same wealth-building opportunities available to wealthier, white communities.<sup>6</sup> While redlining was formally made illegal in 1968, the practice triggered cycles of disinvestment that continue to perpetuate the racialized impacts of redlining. Formerly redlined communities are often utilized as “sacrifice zones” where environmental hazards have been placed, largely due to a lack of community civic power to refuse such decisions.<sup>7</sup>

Additionally, in the 2015 publication, “The Haves, the Have-Nots, and the Health of Everyone,” our colleagues found through an extensive literature review that environmental conditions, particularly air pollution and water pollution, were worse in areas with greater social inequality, but especially in communities with less civic power.<sup>8</sup> In other words, environmental inequality and unequal levels of community agency not only harm “disadvantaged” populations and communities of color, but can produce worse environmental conditions for all. Ultimately, in the U.S., where race has been shown to be a stronger predictor of environmental burden than income in many studies,<sup>9</sup> communities of color experience the impacts of climate change first and worst.



The impact of extreme weather events triggered by climate change such as sea level rise, flooding, extreme heat, and wildfires is expected to intensify in the coming years.<sup>10</sup> Factors such as the ability of a community or household to recover from the impacts of climate change are key to understanding the climate gap—defined as the disparate impact of climate change on low-income communities and communities of color.<sup>11</sup> Studies on health and economic impacts of climate change indicate that people with lower socioeconomic status (SES) are more vulnerable to climate change. For example, low SES groups tend to be the most impacted by extreme heat events because they are disproportionately affected by medical conditions due to inaccessible resources to address health conditions.<sup>12</sup> In addition, people suffering from chronic illnesses have an increased risk of mortality during a heat wave, compared to those who do not.<sup>13</sup> Without equitable policies, the impact on these communities will only be exacerbated.

Burdens created by climate change are also inextricable from economic inequities. Climate change is projected to increase the cost of basic necessities, impacting low-income groups most, as they spend the highest share of their income on necessities like water, electricity, and food.<sup>14</sup> The agricultural sector will also bear the impacts of climate change, meaning workers and communities in crop-growing areas could be affected by job loss and the cascading implications. Lastly, extreme weather events will damage California's infrastructure and studies indicate that low-income households will take longer to recover from damage and property losses.<sup>15</sup> If we want to see deep shifts in our environment and avoid these disproportionate impacts, we must start by prioritizing equity for those most impacted by climate change and historic environmental burdens.

## Justice40 and Federal Landscape of Climate Funding Opportunities

Recognizing the vastly unequal landscape of environmental conditions in the U.S., and the history of disinvestment and injustice that have produced these patterns, the Biden administration announced the Justice40 Initiative in 2021, building on the momentum launched by advocates fighting for a “just transition,” a Green New Deal, and other programs. The premise is straightforward: that communities that have been historically marginalized, underserved, and overburdened by pollution ultimately receive at least 40% of the benefits from climate, energy, transportation, and other federal investments.<sup>16</sup> Justice40 is the most highly visible federal action on environmental justice since Executive Order 12898 was signed in 1994 and directed federal agencies to address the environmental and human health effects of federal activities on minority and low-income populations.<sup>17</sup>

Justice40 will apply to a set of “covered programs” in the following areas: climate change; clean energy and energy efficiency; clean transit; affordable and sustainable housing; training and workforce development; the repair and mitigation of legacy pollution; and the expansion of clean water infrastructure. This means that many federal agencies will be involved in Justice40

implementation.<sup>18</sup> The White House Environmental Justice Advisory Council (WHEJAC) was created to help shape the effort, but its powers are limited as an advisory body.

Justice40 mirrors the goals of CCI in that it seeks to carve-out and deliver a dedicated minimum amount of investments to the communities with greatest needs. A UCLA Luskin Center analysis of Justice40 revealed the need to center justice, community power, and accountability to ensure the initiative’s success.<sup>19</sup> Although some of these principles have been reflected through the initiative’s implementation processes, more than two years in, challenges with implementation have surfaced. They include the lack of power held by WHEJAC; the methods used to build the Climate and Economic Justice Screening Tool (CJEST); challenges inherent to scaling up a tool over such a broad geography; critiques and legal concerns that have led to agencies shying away from explicitly race-conscious solutions; defining “benefit” in a meaningful way; the need for deep community engagement, agency, and capacity building; and more.<sup>20</sup>

At the same time, the federal government has made a host of new funding sources available for climate, energy, infrastructure, and workforce training projects. These come from the Infrastructure, Investment, and Jobs Act (IIJA), Bipartisan Infrastructure Law (BIL) and the Inflation Reduction Act (IRA), as well as the American Rescue Plan (ARPA).<sup>21</sup> Certain investments that are part of the BIL, IRA, and ARPA fall within the scope of Justice40.<sup>22</sup> Figure 1 shows a summary of how the funds can be used. IRA includes the \$27 billion Greenhouse Gas Reduction Fund.<sup>23</sup>

**Figure 1. Federal Funding Opportunities as of April 2023**

American Rescue Plan (ARPA)	Infrastructure Investment and Jobs Act (IIJA/BIL)	Inflation Reduction Act (IRA)
<b>\$350B (original) in State and Local Fiscal Recovery.</b> <b>About \$25B remaining.</b> <b>Must be spent by end of 2026.</b>	<b>\$1.2 trillion over 10 years.</b>	<b>\$730 billion over 10 years.</b>
Funds can be used as a foundation for other federal investments, such as IIJA and IRA, for workforce training and wraparound services for workers.	Rebuilds roads, bridges, public transportation; supports advanced energy technologies & clean water infrastructure; closes the digital divide; grid modernization.	\$369B for climate, clean energy and environmental justice through tax incentives, loans and grants.

Source: Pronita Gupta, “Advancing Good Jobs Through New Federal Investments,” April 26, 2023, Presented at LAANE in Los Angeles, CA. The original version of this figure also included a column for funding available through the Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act.

With all of these funding opportunities, communities are preparing to be able to capture these funds. For example, the Liberty Hill Foundation in Los Angeles County with support from the Resources Legacy Fund launched an “EJ Ready” program to support local environmental justice or EJ groups for federal opportunities.<sup>24</sup> Dollars like these create opportunities for EJ groups to drive community-driven work. At the same time, this funding is also difficult to win and administrate. And to a certain degree, there is a feeling of fatigue among groups on the ground that must constantly put energy and resources into navigating competitive and complex funding applications.

## Cap and Trade and Climate Justice in California

California’s EJ organizations have considerable experience working with the government and holding them accountable to equity—sometimes through legal action, and sometimes through implementing public dollars from the State.<sup>25</sup> Too often the EJ ecosystem in California is not given the credit it is due for the heavy lifting it has done to accomplish equity goals and model a way forward for the nation under difficult and complex political circumstances.

California Climate Investments (CCI) are funded by revenues made in the cap-and-trade auction. Long-time advocates feared that if California’s AB 32 “The Global Warming Solutions Act of 2006” led to a cap-and-trade program, it could exacerbate local GHG and attendant co-pollutants in places that were already overburdened and were typically lower-income communities of color.<sup>26</sup> As put in *Solidarity Economics* by Chris Brenner and Manuel Pastor, the cap-and-trade program basically creates a market out of pollution by pricing externalities back into the market and accounting for a market failure.<sup>27</sup> The authors note that, “it also sets up a situation that means that you should locate your toxic facilities where the ransom you must pay to damage human life is less because incomes are low and power is slight. Given that, it is little wonder that EJ activists have remained highly distrustful of markets and the range of permit and trading systems for carbon dioxide and other pollutants...”<sup>28</sup>

Why do concentrations of carbon emissions matter? Carbon emissions are accompanied by co-pollutants like NO<sub>x</sub>, SO<sub>x</sub>, VOCs/ROGs, and particulate matter (e.g., PM<sub>2.5</sub>) which are harmful to health and, so, when the distribution of carbon changes, so does the distribution of co-pollutants.<sup>29</sup> Several organizations that were once part of CARB’s own Environmental Justice Advisory Committee (EJAC), which was mandated as part of AB 32, sued CARB to oppose establishing cap-and-trade as one of the primary mechanisms through which to meet AB 32 goals.<sup>30</sup> The groups lost the lawsuit, leaving many EJ communities disillusioned by the lack of inclusion of their recommendations in the decision-making around how to meet the State’s climate goals.

Once it became clear that cap-and-trade could not be replaced, EJ groups joined with others to build power and advocate for the resulting billions of dollars in revenues to land in frontline communities, to make up for any concentration of co-pollutants that might occur. SB 535 and AB 1550 were passed to ensure that a minimum of 35% of the State’s portion of cap-and-trade revenues would be allocated

to projects serving Disadvantaged and low-income communities and households.<sup>31</sup> Given this history around EJ groups' disapproval of cap-and-trade and subsequent statutes focused on distributional equity of cap-and-trade dollars, there are tensions around these revenues and an expectation that they truly benefit frontline communities continuing to face unequal pollution burdens. As Lucas Zucker, Co-Executive Director of CAUSE, put it, this has created “a high bar for what we’d want to see from these dollars to basically be accepting the continued pollution...there’s parts of it that’ll bring good things to our communities, but I definitely have [...] mixed, and sometimes negative feelings about it.” Many CBOs and environmental organizations have accepted CCI dollars, particularly given that EJ work remains so woefully underfunded, while continuing to vocalize the desire for a carbon reduction scheme that does not leave any communities behind.





# APPROACH AND ANALYTICAL FRAMEWORK

The goal of this report, *A Call to Invest in Community Power: Lessons from 10 Years of California Climate Investments for the State and the Nation*, is to conduct an equity-focused analysis of the California Climate Investments. Jointly produced by the Greenlining Institute and the USC Equity Research Institute, we are interested in answering questions such as:

- Where have CCI funding dollars gone, and who did they serve?
- Has CCI centered marginalized communities—particularly low-income communities and communities of color—in its goals, processes, and outcomes?
- What are strengths of the initiative that should be replicated and scaled? And what are shortcomings that should be addressed and avoided in the future?

In order to answer these questions and conduct a broader analysis of CCI, we first need to define what we mean by “equity,” and provide a framework for assessing if equity goals were met. We acknowledge that we are not the first researchers to review state-funded climate investment programs to understand equity-focused outcomes and best practices. In this chapter, we provide context on previous publications upon which we built our work; definitions of equity which informed our approach; our equity analysis framework which utilizes a set of Equitable Climate Investment Principles; and the methods through which we conducted our analysis.

It is important to note that while there is deep historical and ongoing concern around cap-and-trade, this report chiefly focuses on the usage of the revenue dollars generated by the mechanism—i.e., how CCI dollars were distributed, who they benefited, how affiliated CCI programs and processes could be improved, and what lessons can be transferred for use by others implementing climate investments

in other states and at the federal scale. Ultimately, true environmental justice should entail a carbon reduction mechanism that does not disproportionately burden or harm any communities. Given the limitations of this report, this particular analysis focuses on how to improve investments and ensure outcomes from these resources once funds are available.

## Previous Efforts to Analyze Climate Investments and Understand Best Practices

When designing our own equity analysis framework for this report, we took these publications into account:

- A 2014 report by the Luskin Center for Innovation (LCI) summarizes a workshop it hosted with The California Endowment on how to equitably invest GGRF funding under the then-recently enacted SB 535.<sup>32</sup> The resulting working paper offers a performance management approach that is strongly data driven and delves deeper into six specific sectors (similar to our own approach discussed further below).
- In a 2015 report, LCI evaluated six CCI programs after the second round of GGRF appropriations<sup>33</sup> and found that deeper outreach was needed to reach applicants, more data was needed to assess impacts, and that demand for funding still exceeded available dollars. In 2021, The Greenlining Institute (Greenlining) conducted an equity analysis on the Transformative Climate Communities (TCC) program, finding that while it has worked to empower communities and reduce CO2 emissions, there was a need for greater investment in community capacity building as well as more dedicated state funding for TCC.<sup>34</sup>
- LCI is also the evaluator for TCC and has conducted in-depth evaluations of how the program is operating in Pacoima, Fresno, Watts, Stockton, and Ontario.<sup>35</sup> LCI's reports offer detailed information about the environmental conditions facing each community, details the community's projects and goals, and provides profiles on specific project outcomes as well as the experiences of community members themselves. Findings on the successes and areas for improvement within TCC are critical for this report because we find it to be one of the best program models funded through CCI.
- A 2019 ERI report focused on Just Transition strategies argued that to reach a just low-carbon future, there must be strong governmental support, dedicated funding streams, strong diverse coalitions, and economic diversification.<sup>36</sup>
- A 2021 report from Greenlining uses case studies to make recommendations on best practices for creating equity within California's clean mobility programs.<sup>37</sup>

Outside of California, the creation of Justice40 has resulted in publications with recommendations on how to produce equitable outcomes from federal dollars.

- The Urban Institute, based on interviews and convenings with staff from environmental justice organizations, moved quickly to offered recommendations on the following themes: “identifying, engaging, and prioritizing communities”; “program design and funding structure”; “defining and measuring benefits”; “oversight and accountability”; and “whole-of-government approach.”<sup>38</sup> These themes reflect the opportunities that could come with J40 but also their interviewees’ considerable concerns that it will actually deliver benefits.
- LCI’s 2021 report, *Making Justice40 a Reality for Frontline Communities*, analyzed climate investment programs in Washington, Virginia, New York, Maryland, Illinois, and California and is used to provide guidance on the implementation of Justice40.<sup>39</sup>

We are also informed by the work of the UC Berkeley Labor Center on high-road jobs to support a clean energy transition:

- The UC Berkeley Labor Center has written thoughtfully and extensively about the importance of high-road jobs including demand-side and supply-side levers as well as sector-specific considerations.<sup>40</sup>
- More recently, the UC Berkeley Labor Center has assessed the extent the State has implemented previously recommended high-road labor strategies. It also notes that 60% of the state’s climate investments incorporate some standards.<sup>41</sup> However, the remaining investments that do not apply these standards represent significant untapped potential in improving statewide labor practices, as well as connecting historically excluded workers for these projects.

This report seeks to build upon this existing scholarship on how to improve the design and delivery of public climate dollars by contributing an equity-focused analysis of the California Climate Investments as an initiative at-large, supported by detailed analysis of a subset of programs. Our report builds upon, complements, and also serves as an update on previous work conducted by Greenlining and others, to understand equity-focused outcomes and areas for improvement in TCC, mobility programs, and other climate investments.

In addition to this field of scholarship, we draw attention to two particular USC ERI and Greenlining publications which serve as the foundation for our CCI equity analysis.

**Measures Matter: Ensuring Equitable Implementation in Los Angeles County Measures A & M**, offers a framework to support government, community stakeholders, and philanthropy in implementing public dollars in an equitable manner.<sup>42</sup> The report was developed because too often, organizations and their members in communities of color engage voters to pass ballot items that promise to bring benefits to their neighborhoods; but once passed, these dollars often go elsewhere. Measures Matter offers guidelines to close this gap.

Through literature reviews and interviews with equity stakeholders, it offers a definition of equitable implementation and eight principles of equitable implementation:

1. Drive with equity from the start;
2. Support grassroots groups and leadership development;
3. Share decision-making among residents, cities, and agencies;
4. Take a collaborative approach to training and technical assistance;
5. Attach equity guidelines to government dollars;
6. Advance a broad regional economic and health equity platform;
7. Integrate and lead across silos; and,
8. Conduct ongoing outcomes and process evaluation.

The Greenlined Economy Guidebook was based on an extensive review of literature, interviews with local stakeholders, and committees that provided feedback and crucial information related to activities of community-based organizations and on-the-ground news. The guidebook details the vision of a Greenlined Economy, an economy of sustained equity that is non-extractive and ecologically resilient, possible through equitable community investments that address poverty and inequity guided by principles that such an economy is cooperative; regenerative; democratic; non-exploitative; and inclusive. Furthermore, it sets six standards for these community investments:

1. Emphasize race-conscious solutions;
2. Prioritize multi-sector approaches;
3. Deliver intentional benefits;
4. Build community capacity;
5. Be community-driven at every stage; and
6. Establish paths toward wealth-building.<sup>43</sup>

This report utilizes the recommendations from Measures Matter and The Greenlined Economy Guidebook, in particular, to construct a set of Equitable Climate Investment Principles which serves as a framework for our analysis of CCI. This approach is discussed further in this chapter.

#### **Equitable Implementation...**

**PAST** | Prioritizes investments that will close racialized gaps, especially by wealth, environmental burden, and existing amenities in a way that will improve work and economic and health opportunities for underinvested communities.

**PRESENT** | Involves partnership throughout the process that centers the perspectives of vulnerable communities, that supports authentic community-based participation and power, and that results in shared decision-making, while also strengthening the health and well-being of the entire region.

**FUTURE** | Takes into account the future by leveraging funding for long-term community health and organizational capacity, mitigates future harm that may result for new investments in a place, and incorporates metrics and evaluation to promote adaptable and effective implementation.

Source: USC Equity Research Institute. \*Measures



# Defining Equity

Before constructing a framework through which to assess how well an initiative is doing on equity, we must first define what we mean by the term.

We define Equitable Climate Investments as climate investments that acknowledge the environmental, economic, and health harms imposed upon communities of color as well as low-income and other marginalized communities by past and current investment decisions, and consciously work to reverse those harms. These investments honor the agency of these communities and are guided by community-driven groups and coalitions supported by other stakeholders such as government agencies and philanthropy. To achieve equity in climate investments, these coalitions work toward a more just future by delivering environmental resources desired by community members, and prioritizing delivery to the places with greatest needs while not creating new harms or perpetuating ongoing burdens in the process.

We draw upon the following dimensions of equity that have been discussed in the recent literature and scholarship on the topic:

**Reparative Equity: Reparative equity recognizes the structural, systemic, and intergenerational harms and burdens imposed upon frontline communities by past policy and (dis)investment, and seek to reverse these harms.**<sup>44</sup>

It's not enough to simply allocate climate resources in the present so that communities have access to similar resources and opportunities, regardless of race or income. We must also consider and address the injustices that have led to environmental inequities in the first place. These legacies of the past, from policies like redlining and colonization of Indigenous land, impose ongoing harms and continue to perpetuate systemic, structural, and policy-based injustices in the present.<sup>45</sup> When considering reparative equity, it's important to consider how current investments can recognize and alleviate these transgenerational harms, and ensure sustained reparative efforts in the future through race-conscious solutions.<sup>46</sup>

**Procedural Equity: Procedural equity reflects marginalized communities' ability to meaningfully engage with and drive programs and investments, and to participate in all stages of decision-making with meaningful power and influence.**

Climate and environmental justice communities are most acquainted with the needs of their communities and have a right to self-determination. To achieve procedural equity,<sup>47</sup> program processes must reflect frontline community priorities, needs, and burdens—as determined by sustained community engagement, listening to communities, and having community voices drive projects and outcomes. Governance structures and processes must also be transparent and participatory to allow community voices to meaningfully drive future policy directions, and must ultimately be held accountable to frontline communities.<sup>48</sup>

**Distributive Equity: Distributive equity asks how well the distribution of benefits and burdens of investments are centering those communities who have been historically marginalized.**<sup>49</sup>

Distributive equity, focuses on ensuring that resources are clearly dedicated for delivery to those communities that have been historically marginalized and have the greatest needs.<sup>50</sup> Such investments should be explicit in who benefits, and who is burdened or harmed as a result.<sup>51</sup> Researchers also suggest that equitable investments should take proactive action to ensure sustained future alleviation of these disparities by not investing in harmful programs (like fossil fuel extraction in frontline communities)<sup>52</sup> and including race/ethnicity as a specific factor in investment decisions.<sup>53</sup> In achieving distributive equity, climate investments must also ensure that benefits are actually visible to and felt by communities they are intended to support.

Taking these aspects of equity into account, we view equity as not a singularly measurable outcome, but as a multidimensional practice that must be continuously fostered, assessed, and updated. Equity in the context of climate investments requires thoughtful consideration throughout planning as well as implementation.

Rather than a singular checkbox to be completed, we frame equity as a central set of practices that must be considered and an orientation that reflects upon considerations from past, present, and future, as proposed by the USC Equity Research Institute's 2018 Measures Matter report (see prior sidebar).<sup>54</sup> These practices cannot be disentangled from any stage of the climate investment process, and must be considered holistically to fully consider the equity within CCI outcomes.

## Our Approach

Building from the above literature, the three conceptions of equity, and our definition of Equitable Climate Investments, we developed a set of Equitable Climate Investment Principles (ECIPs) to offer for use in both influencing the design and assessing the equity outcomes of any climate investment. These principles were further refined according to feedback from partner community-based organizations (subset of organizations listed in Appendix D). Each Principle connects to one of four broad dimensions of a climate investment project or program, including the initiative's 1) mission, vision, and values; 2) processes; 3) outcomes; and 4) evaluation and accountability efforts. These four categories draw on Greenlining's broader "Making Equity Real Framework" which advocates for embedding equity considerations holistically across these dimensions.<sup>55</sup>

Program Area	Equitable Climate Investment Principles
<b>Mission</b>	1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities.
<b>Process</b>	2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.
	3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.
	4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.
<b>Outcomes</b>	5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis.
	6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.
	7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities.
	8. Advance health equity outcomes and at minimum, do not create more harm.
	9. Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gaps; at minimum, do not perpetuate economic harms or inequities.
<b>Evaluation + Accountability</b>	10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.

Using this framework and principles that were refined with feedback from partner community-based organizations, we assessed how well CCI is performing against this framework and principles. We used a mixed-methods approach with the following steps:

- Performed desk research reviews to understand how equity is represented in CCI based on publicly available documents and programmatic guidelines.
- Interviewed key stakeholders who could reflect on CCI as a whole or aspects of it, statewide. These were mostly environmental justice stakeholders.
- Conducted interviews for 10 CCI program case studies and CCI as a whole with a wide range of stakeholders, with a particular focus on environmental justice advocates who have voiced opinions on the program in the past, program administrators, funding recipients, and communities and organizations that have not been previously centered by research or program evaluation efforts. We interrogated how these 10 programs performed against the ECIPs.

- Conducted focus group conversations with environmental justice and community leaders in three selected regions, to get a sense of how CCI is generating regional- and local-level equity outcomes.
- Analyzed where CCI dollars are actually going using the funding implementation database made publicly available by the California Air Resources Board.

Using all of this data, we assessed how CCI fares against our ECIP framework. Based on that analysis, we offer lessons, recommendations, and Justice40 implications.

This analysis is not meant to be a comprehensive evaluation of CCI. We could not look at every program, or every aspect of CCI, or every way that CCI has impacted communities. We did not look closely at issues related to water quality and access, which is an important environmental and climate justice concern. Our approach to understanding Tribal communities' experience with CCI is through interviews with a limited set of Tribal stakeholders who participated in selected programs, as well as through an interview with CARB. We acknowledge this is not a comprehensive approach to understanding Tribal communities' experiences and desires around climate investments but were also cautious to not burden Indigenous communities with more requests.

Overall, this report still offers something novel: the most comprehensive third party equity-focused analysis of CCI to-date. We offer a dedicated equity analysis through an equity lens, using illustrative examples with the goal of identifying strengths and areas for improvement. Our goal in presenting this report is to be of assistance to all climate stakeholders in ensuring more equitable outcomes from CCI and from any future public climate investments in California and beyond.

## EQUITABLE CLIMATE INVESTMENT PRINCIPLES (ECIPs)

Our Equitable Climate Investment Principles (ECIPs) are a set of principles we believe are necessary to ensure that climate investments achieve equitable outcomes and contribute to the transition toward a more just economy. They are rooted in USC ERI's eight Principles for Equitable Investment from *Measures Matter* and Greenlining's Six Standards for Equitable Community Investment from *The Greenlined Economy Guidebook*. Built out from our previous work, these principles have been refined through input from interviews with environmental justice advocates and stakeholders in California and made applicable to a broad array of climate investments.

### **Principle 1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities.**

The environmental injustice and disparities we see in California (and throughout the world) cannot be decoupled from the history of systemic racism in policy decisions. The segregation of communities of color through discriminatory practices like racial housing covenants into areas that were subsequently redlined and disinvested have led to higher-than-average pollution in those regions.<sup>56</sup>



Hazardous waste management facilities, oil and gas production, and highways have been sited by the state and corporations in people of color-majority neighborhoods and on the land of Tribal Nations, and railroad tracks and industrial areas sited near housing of Black and Latinx workers.<sup>57</sup> Black and Latinx residents now disproportionately live in the most pollution-burdened neighborhoods<sup>58</sup> and suffer the attendant health disparities.<sup>59</sup> We must also acknowledge that all of this is happening on the unceded land of Tribal Nations, which was dispossessed by the State through the attempted genocide and, then, exploitation and forced assimilation of Indigenous peoples.<sup>60</sup> These examples demonstrate the structural presence of racism<sup>61</sup> in environmental policy and investment decisions in California over the past century. Simply put in The Greenlined Economy Playbook: “race-conscious policies...got us to this point.”<sup>62</sup>

To be truly equitable, climate investments must start with an acknowledgement of these past racially discriminatory policy decisions that have caused vast inequalities in environmental quality, health, and investment; actively commit to repairing past harms; commit to supporting impacted communities with resources and assistance; and build the institutional capacity necessary to actualize enduring systems, processes, and policies to eliminate racial disparities in environmental quality, health, and wellbeing.

Actions which can be taken by state agencies to achieve this include:

- Explicitly recognizing systemic racism and institutional responsibility to repair inequities.
- Partnering with and compensating Indigenous, and People of Color (BIPOC) community organizations and representatives to clearly define equity in the context of a given program, project, and/or investment.
- Setting equity-focused goals and targets at the start of the investment process that address unequal outcomes (e.g., funding set-asides for Disadvantaged Communities; set-asides for under-resourced program users like minority-owned businesses and marginalized businesses owners; targets for hiring Disadvantaged Workers).
- Identifying and removing barriers for historically disinvested communities in accessing opportunities.
- Transparently collecting and analyzing racially disaggregated geographic data to understand program delivery, and address outreach gaps and any potential unfair burdens accordingly.
- Structurally building enduring racial equity capacity within agencies through actions like establishing permanent offices staffed with racial equity practitioners; providing racial equity education to staff on frameworks and tools; and anchoring racial equity practices consistently and with continuity.

**Principle 2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.**

Land use, planning, and development decisions have often been undertaken by government agencies with insufficient engagement of and direct influence by marginalized communities. Zoning activities in the U.S. were historically conducted by governments dominated by white powerholders;<sup>63</sup> redlining maps that held back generations of Black and Brown individuals from building and transferring wealth were produced by a federal agency with no input from affected communities;<sup>64</sup> and fossil fuel extraction continues to take place on sacred Indigenous lands over the direct protest of affected Indigenous people.<sup>65</sup> The historically intentional and presently institutionalized patterns of stripping political agency from marginalized communities continues to inflict harm on these neighborhoods.

In the context of climate investments, it is critical that priority communities have a seat at the table and the power to influence what investments are made and how—particularly when it comes to projects in their own neighborhoods.

Actions which can be taken by state agencies to achieve this include:

- Establishing permanent, trusting, and sustainable lines of communication between agencies and EJ communities, Tribal Nations, and other marginalized communities to prioritize the needs of those who are directly impacted.
- Designing funding and projects to ensure they address communities' stated needs, values, and desires—both in project types and processes—in addition to achieving GHG emission reductions.
- Maintaining a paid advisory and oversight board to meaningfully guide climate investment design, implementation, and evaluation.
- Not funding any unwanted projects that have received community pushback.
- Centering the needs, values, and priorities of Tribal Communities, including by eliminating waivers of sovereign immunity from Tribal Nations as a requisite for accessing public funding.

### **Principle 3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.**

Under-resourced communities must be able to access and utilize available funding for climate projects for these dollars to produce any meaningful impacts. Burdens to this front can come in many forms beyond explicit exclusion. Under-resourced local governments and community-based organizations may not have the administrative or technical capacity to apply for and utilize opportunities, even if they are plentiful.<sup>66</sup> It may be too expensive for organizations to front capital for construction, supply costs, or labor and wait to be reimbursed by the State. When it comes to programs that are intended for use by households, it is possible that individuals are not aware of available resources if there are gaps in a program's outreach strategy like language, cultural competence, or relevant modes of communication.

For climate investments to be equitable, agencies and programs must proactively anticipate and minimize any burdens and barriers to accessing and utilizing resources for priority groups.

Actions that can be taken by state agencies to achieve this include:

- Establishing ease-of-use as a key element of a program’s design.
- Offering technical assistance to community groups and local governments for application, implementation, as well as reporting requirements.
- Integrating funding across silos to ensure that investments across a portfolio are cohesive and user-friendly, and providing users with well-organized, up-to-date information on opportunities and timelines.
- Allowing programs to fund work upfront instead of through reimbursement.
- Utilizing a streamlined application system for funding opportunities.
- Proactively fostering inter-agency dialogue to identify solutions and best practices for minimizing burdens to Tribal communities and under-resourced communities.

**Principle 4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.**

A power-building ecosystem is the constellation of diverse organizations moving together towards climate justice. It requires the skills and capacities of many but must be centered around organizing and base-building, as seen in Figure 2. “Central to the ecosystem are organizations developing an active and aligned base of leaders and members (whether community, students, faith, or labor) that can engage decision makers and hold them accountable.”<sup>67</sup>

Through the process of producing this research we have learned that power-building organizations helped pass critical statutes to center equity in CCI (e.g., SB 535 and AB 1550), have fought to keep equitable programs funded, and have implemented CCI dollars to align with community vision. We thus argue that the power-building climate justice ecosystem must thrive in order to support equitable climate investments. Such power-building is required to reverse decades of disinvestment and harm in frontline communities. Contributing resources to help strengthen the ecosystem is a role that philanthropy must play; but the State of California and other governments can also play a supportive role as identified in the list below.

**Figure 2. Schematic of the power-building ecosystem**



Source: "California Health and Justice for All Power-Building Landscape: A Preliminary Assessment" by USC Program for Environmental and Regional Equity (now USC Equity Research Institute), October 2018. Since publication of this "power flower" the authors have chosen to add a "Healing Justice" petal.

Actions which can be taken by state agencies to achieve this include:

- Identifying power-building organizations (e.g., community-based organizations, advocacy groups, legal assistance groups, research groups, philanthropies) in regions and ensuring they are looped into climate investment opportunities (e.g., being aware of funding, resources, outcomes in the community, as well as opportunities to shape programs as relevant).
- Compensating community organizations and leaders for their expertise and services.
- Coordinating with philanthropic groups to increase and sustain community capacity, and support community engagement where the State cannot.
- Coordinating across state agencies to foster partnerships with philanthropic groups.

**Principle 5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis.**

Climate investments must produce outcomes that are desired by the communities that are on the frontlines of the climate crisis. Instead of implementing projects that are desired by the State, investments must go towards activities that are prioritized by local communities who know their

short and long-term needs and desires best. In this vein, projects and programs that are not wanted by local residents must be carefully interrogated and corrected or defunded.

One of the challenges and opportunities with implementing climate investments is they can provide multiple benefits ranging from GHG reductions to improved air quality, job creation, and more. It is impossible to separate climate equity from efforts to address structural racism, health and housing justice, immigrant inclusion, and other forms of inequities. However, these issues can and should be addressed simultaneously to achieve intersectional justice with a finite pool of public funding.<sup>68</sup> This requires thoughtful coordination across state agencies as well as vertical coordination between communities, organizations that can bring people together, and agencies that can provide climate investments.<sup>69</sup>

Actions which can be taken by state agencies to achieve this include:

- Ensuring investments provide desired benefits to communities through consistent community engagement and metric tracking
- Ensuring that projects and programs that are not wanted by local residents are carefully interrogated and corrected or defunded
- Integrating investments across silos to ensure that they are coordinated across the region and are driven by community-identified needs and desires.
- Ensuring climate investments produce multi-benefit outcomes that center not just GHG reductions through one intervention, but consider all of the other ways in which the investments can advance pressing intersectional concerns.

### **Principle 6. Make reductions in local pollution burdens a co-equal goal and outcome to decreasing GHGs.**

Reducing GHG emissions is critical to mitigate the worsening impacts of climate change. However, many pollutants that are not classed as GHGs still have a negative impact on the local environment and human health. Common air pollutants that are linked with GHG emissions (“co-pollutants”) include particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), reactive organic gasses (ROGs), nitrogen oxides (NOx), and sulfur oxides (SOx) which can create major health harms for local or regional communities—like respiratory disease, cardiovascular disease, and even cancer.<sup>70</sup> Agricultural or industrial facilities might direct waste into local waterways that communities depend on for their supply of drinking water, resulting in contaminated water systems that are disproportionately concentrated in low-income and Latinx communities.<sup>71</sup> Soils near industrial facilities may be contaminated with lead—which does not break down over time and can cause particular damage to children’s nervous systems<sup>72</sup>—as seen in majority-Latinx communities near the former Exide plant in southeast Los Angeles County.<sup>73</sup> When taking into account multiple forms of pollution, Black and Latinx residents disproportionately live in the most pollution-burdened neighborhoods in California<sup>74</sup> and, as a result, face the greatest pollution-related health burdens as well.



In seeking to address these disparities, recent research has shown that explicitly incorporating co-pollutant reduction mandates alongside GHG reductions leads to a much greater reduction in air pollutants in Black and Latinx communities than a GHG-exclusive policy, and that not doing so leads to the opposite result in California.<sup>75</sup> To properly account for the negative impacts that both GHGs and other pollutants can have on frontline communities then, climate investments should have the goal of making measurable reductions in all pollutants, not just GHGs—or at least, not contribute further to local pollution burden.

Actions which can be taken by state agencies to achieve this include:

- Taking significant precautions or, ideally, not funding projects, that exacerbate existing local pollution (in air, water, soil).
- Integrating GHG co-pollutant reduction (PM 2.5, PM 10, NOx, SOx, and ROG) objectives into climate funding guidelines and tracking outcomes in addition to GHG reductions.
- Integrating pesticide reduction objectives into existing climate funding guidelines (where relevant) and tracking outcomes in addition to GHG reductions.
- Tracking where local pollution GHG co-pollutants are increasing or decreasing as a response to climate policies and investments and addressing any disparate geographic outcomes.

**Principle 7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities.**

Ending the use of fossil fuels is absolutely critical for sustaining a liveable future and addressing the local pollution burdens borne by frontline communities. In the 2022 Scoping Plan for Achieving Carbon Neutrality, CARB acknowledges that a “drastic reduction” in fossil fuel consumption is necessary to achieve the State’s climate goals, but states that some level of in-state fossil fuel production will still be necessary to meet demand without causing emissions leakage to shift elsewhere.<sup>76</sup> Fossil fuel production in California, however, is disproportionately concentrated in communities of color—especially Black communities—and the harmful effects of extractivism on the health of these communities is well-known.<sup>77</sup> Continuing to sacrifice the health of Black and Latinx Californians in order to squeeze profit out of an ever-dwindling supply of fossil fuels is antithetical to environmental justice. Any equity-focused climate investments must work toward ending the use of all fossil fuels in California.

A just transition must also avoid advancing “false solutions” that prolong the existence of the fossil fuel industry and risk the continued pollution of Black communities in particular—like natural gas infrastructure and carbon capture storage.<sup>78</sup> Hydrogen technologies must also be handled with care, following the principles developed by EJ communities to minimize impact and harm.<sup>79</sup> Instead, the State should divert fossil fuel investments to the expansion of clean energy necessary to meet its climate goals,<sup>80</sup> in deep collaboration with frontline communities. It is also important to recognize the immense material requirements of facilitating a transition to a clean energy future, particularly in the transportation sector. Lithium-ion batteries used in electric vehicles contain significant amounts of

mined materials such as nickel, manganese, cobalt, lithium, graphite aluminum, iron, phosphate, and others.<sup>81</sup> Massive demand and subsequent increased mining is already causing disruptions in local ecosystems, threatening water supplies, posing health risks to local populations, and creating exploitative and unsafe working conditions in many mining sites across the globe.<sup>82</sup>

Actions that can be taken by state agencies to achieve this principle include:

- Centering the concerns of frontline communities about continued fossil fuel reliances and/or transition strategies in any policy and investment decision-making.
- Banning the use of climate investment dollars to fund any fossil fuel infrastructure.
- Banning the use of transition strategies like hydrogen fuel when they are truly clean and may pose harms to selected communities.
- Funding workforce development programs that support a just transition for those in extractive industries that must be phased out.
- Identifying the potential impacts of large-scale clean energy technology deployment on mineral demands locally and globally, and establishing protective policies (e.g., advancing reduced use and recycling, supporting responsible mineral standards).

#### **Principle 8. Advance health equity outcomes and at minimum, do not create more harm.**

As mentioned in the previous Principles, a key reason that pollution reductions and divestment from fossil fuels are central asks of EJ advocacy is their effect on human health and the concentration of this burden in frontline communities. Siting of harmful and polluting industries has led to disproportionate pollution burdens in communities of color, which have directly affected residents' health and life expectancies.<sup>83</sup> These communities of color are exposed to significant air toxins and have higher incidence of cancer risk distributions—this racial explanatory role persists even when controlling for socioeconomic and other demographic variables.<sup>84</sup>

Further, communities of color are disproportionately affected by pesticide use and toxic chemical releases.<sup>85</sup> Rural communities also face specific risks to water contamination and exposure to nitrates and pesticides as a result of the high concentration of agricultural industries.<sup>86</sup> This contamination of water sources and exposure to agricultural waste has been linked to high incidence of thyroid cancer. Much harm to community health has been caused by decisions made by corporations and condoned (or catalyzed) by governments. Climate investments must seek to reverse these harms by advancing health equity outcomes. At a minimum, investments must not perpetuate these racial health disparities and cause even more harm. Although little can be done to “reverse” these infrastructure decisions, those studies also highlight how policymakers can engage local partners and residents in those areas to produce successful solutions and better health outcomes.<sup>87</sup>

Actions which can be taken by state agencies to achieve this include:

- Prioritizing investments into communities that have experienced generations of environmental and health harm inflicted by polluting industries and infrastructure. [88](#) [89](#)
- Collaborating with public health departments to make sure investments are integrated, that programs are designed with health benefits in mind, and that programs are delivered to those places with the greatest health inequities.
- Integrating pesticide reduction efforts into existing climate investment programs.
- Funding land remediation throughout the state, including holding industry accountable in a way that resources the clean-up work.
- Investing in green space and other venues for community well-being in frontline communities.

**Principle 9. Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.**

It is not a coincidence that Black, Indigenous, and Latinx communities in California experience higher-than-average poverty rates [90](#) in conjunction with pollution burdens<sup>[91](#)</sup> and climate risks. [92](#) Climate investments on their own, cannot reverse decades of disinvestment and harms that have produced the racial wealth gap visible today, but they can contribute to this process. Climate investments can help frontline communities build economic resilience by creating high road jobs for local workers,<sup>[93](#)</sup> including for those who face employment loss from fossil fuel phase outs. There can also be opportunities to build more longer term community wealth through efforts like community ownership of solar arrays,<sup>[94](#)</sup> affordable home ownership of climate resilient and transit-oriented housing,<sup>[95](#)</sup> and through the support of employee-owned firms where relevant. [96](#) Climate investments must also not contribute to potential economic harms for low-income communities and communities of color, for instance, in the form of gentrification and displacement.<sup>[97](#)</sup>

Actions which can be taken by state agencies to achieve this include:

- Embedding targeted hiring requirements in public funding opportunities
- Ensuring that investments in high-road jobs supported by climate investments are reaching priority populations and frontline communities
- Providing opportunities for the community ownership of assets (e.g., solar arrays, land and housing, businesses), wherever possible and relevant
- Ensuring that funded programs do not pass on cost burdens to low-income households or communities (e.g., higher rent costs)

**Principle 10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.**

Public agencies should be kept accountable to advancing more equitable, race-conscious outcomes in climate investments. Results should be consistently assessed and monitored to ensure long-term equitable outcomes, especially as environmental and socioeconomic conditions in communities evolve.<sup>98</sup> Simply meeting an equity metric in one snapshot of time is not impactful if the effort falls away again just as quickly. As Measures Matter points out, “Good intentions are only as helpful as the follow-through that comes after.”<sup>99</sup>

Consistent assessment is also important to understand whether climate investments are meaningfully moving the needle on past and present environmental inequities and in meeting the State’s climate goals as they are intended. It’s important to understand whether and how investments are impacting communities through community feedback mechanisms so beneficial aspects of programs can be continued and harmful aspects discontinued. Climate investments must also assess any relevant data in an open and transparent manner so programs can be held accountable by the State itself, researchers, and communities.

Actions which can be taken by state agencies to achieve this include:

- Collectively establishing and tracking equity metrics (e.g., tangible economic and other benefits reaching disadvantaged households, whether community-priority desires are being met)
- Including and empowering frontline communities and community organizations in the program evaluation process.
- Accounting for equity evaluation costs in program budgets.
- Structuring databases to allow for easy geographic analyses of where program funding and benefits are landing.
- Ensuring that accountability structures are in place to ensure that desired benefits reach communities and that feedback is iteratively integrated to improve programs.
- Continuously evolving reporting mechanisms as needed.

# CCI INITIATIVE STRUCTURES, PROCESSES, AND STATUTES

The California Global Warming Solutions Act of 2006 (AB 32) mandated the state to reduce greenhouse gas (GHG) emissions to 1990 levels by 2020, and to maintain and continue reductions beyond 2020.<sup>100</sup> The state's cap-and-trade program was established in 2012 as a key component of a suite of strategies to meet AB 32 mandates,<sup>101</sup> and the Greenhouse Gas Reduction Fund (GGRF) was created to serve as a repository for the State's portion of cap-and-trade auction proceeds.<sup>102</sup>

Funds from the GGRF are used to support programs and initiatives that reduce GHG emissions and produce additional co-benefits. These activities are collectively known under the umbrella initiative called the California Climate Investments (CCI) initiative. CCI has included 75 different programs since its inception, spanning a wide range of investment types, including: transportation, housing and land use, forestry and greening, technical assistance, and more.<sup>103</sup> The structure and implementation processes of CCI are driven by a suite of legislation that has evolved since 2012. A comprehensive list can be found on the California Air Resources Board (CARB) webpage.<sup>104</sup> A selection of significant statutes are referenced below.

## Key Components of How CCI Works

### PRIMARY GOALS

The primary goal of CCI is to fund programs that reduce GHG emissions while addressing, “where applicable and to the extent feasible,” other objectives to:



“(1) Maximize economic, environmental, and public health benefits to the state.

(2) Foster job creation by promoting in-state greenhouse gas emissions reduction projects carried out by California workers and businesses.

(3) Complement efforts to improve air quality.

(4) Direct investment toward the most disadvantaged communities and households in the state.

(5) Provide opportunities for businesses, public agencies, nonprofits, and other community institutions to participate in and benefit from statewide efforts to reduce greenhouse gas emissions.

(6) Lessen the impacts and effects of climate change on the state’s communities, economy, and environment.” <sup>105</sup>

In 2012, AB 1532 identified several priority investment areas that should be funded to reduce GHG emissions using GGRF dollars. These include, but are not limited to the priority areas identified below:

(1) “Energy efficiency and renewable energy.

(2) Low-carbon transportation, freight, and advanced technology and fuels.

(3) Natural resources, including water use and supply, land conservation, forestry, and sustainable agriculture.

(4) Strategic planning for sustainable infrastructure, including transportation and housing.

(5) Reduction, diversion, and reuse of waste.

(6) Partnerships for local and regional implementation.

(7) Research, development, and deployment of innovative technologies and practices.”<sup>106</sup>

In 2017, in conjunction with renewing the Cap-and-Trade Program through 2030, AB 398 established additional priority areas to which funding from the GGRF should be allocated. These include, but are not limited to the priority areas identified below:

“(1) Air toxic and criteria air pollutants from stationary and mobile sources.

(2) Low- and zero-carbon transportation alternatives.

(3) Sustainable agricultural practices that promote the transitions to clean technology, water efficiency, and improved air quality.

(4) Healthy forests and urban greening.

(5) Short-lived climate pollutants.

(6) Climate adaptation and resiliency.

(7) Climate and clean energy research.”<sup>107</sup>

## PRIORITY POPULATIONS

SB 535 and AB 1550 are two highly significant statutes which direct how CCI funding is distributed. Together, they require a minimum of 35% of CCI dollars to be located within and to benefit Priority Populations. Priority Populations include Disadvantaged Communities (DACs), low-income communities and households, and low-income communities located within a half-mile buffer of a DAC. DACs include “... Census tracts with the highest 25% of overall scores in the State based on CalEnviroScreen 4.0; Census tracts lacking overall scores in CalEnviroScreen 4.0 due to data gaps but receiving the highest 5% of scores on a composite score measuring cumulative pollution burden; Census tracts identified in the 2017 SB 535 disadvantaged communities designation as disadvantaged, regardless of their scores in CalEnviroScreen 4.0; and Lands under the control of federally recognized Tribes.”<sup>108</sup>

Per SB 535 and AB 1550, a minimum of CCI funds must be allocated in the following ways:

- 25% to projects located within, and benefiting individuals living in DACs;
- 5% to projects that benefit low-income households or to projects located within, and benefiting individuals living in, low-income communities located anywhere in the State;
- 5% to projects that benefit low-income households that are outside of, but within one half-mile of, DACs, or to projects located within the boundaries of, and benefiting individuals living in, low-income communities that are outside of, but within one half-mile of, DACs.<sup>109</sup>

## FUNDING APPROPRIATIONS AND ALLOCATION PROCESSES

Investment Plans (3-year) identify priorities for CCI investments by sector. These are not binding requirements, but assist the legislature in identifying priority sectors and programs to fund year-to-year.<sup>110</sup> About 65% of GGRF is currently continuously appropriated to programs like High Speed Rail (HSR) (25%), Affordable Housing and Sustainable Communities (AHSC)/ Sustainable Agricultural Lands Conservation (SALC) (20%), Transit and Intercity Rail Capital Program (TIRCP) (10%); Low Carbon Transit Operations Program (LCTOP) (5%); and the Safe and Affordable Drinking Water Fund (5%). The remaining 35% is allocated to different programs through an annual budgeting process led by the legislature.<sup>111</sup>

## ENTITIES INVOLVED IN CCI

Multiple state agencies collaborate to administer and implement CCI programs. The agencies and their corresponding roles are highlighted below:

- **California Air Resources Board (CARB):** CARB is the lead agency that administers the CCI by producing funding guidelines; assisting administering agencies with program design to comply with guidelines as well as implementation and reporting; and providing public data on CCI outcomes, among other activities.
- **California State Legislature:** The CA legislature determines how funding is allocated to various CCI programs on an yearly basis through the State's budgeting process. It can also influence CCI's design and implementation processes through statutes such as those listed in the section above.
- **Administering Agencies:** There are over 20 agencies that administer programs funded through GGRF dollars. The agencies must design and implement programs to comply with CCI requirements around GHG emissions reductions quantification, setting goals and tracking benefits to priority populations, and fulfilling reporting.
- **CalEPA:** CalEPA manages and updates the CalEnviroScreen tool, which is used to identify DACs that are prioritized for funding under SB 535 and AB 1550 (in addition to low-income communities and households). CalEPA also provides input on the CCI 3-year Investment Plan as well as the CCI Funding Guidelines.
- **Department of Finance:** The Department of Finance submits CCI's Annual Reports and the 3-Year Investment Plan to the Legislature in coordination with CARB and other agencies; it also maintains fiscal reports required to manage the GGRF.<sup>112</sup>

## Key statutes and guidelines related to equity

CCI as an initiative has been shaped over the last 10 years through legislation that guides how funding for CCI is allocated and processes involved to administer CCI. A small subset of key statutes focused on embedding equity into CCI are noted below.

### DISTRIBUTION EQUITY

- **(De León, Chapter 830, Statutes of 2012) and AB 1550 (Gomez, Chapter 369, Statutes of 2016):** In 2016, AB 1550 amended the minimums for DACs set forth in SB 535. Together, the SB 535 and AB 1550 set investment minimums for the CCI as follows: at least “25% of the proceeds be invested in projects that are located within and benefiting individuals living in

disadvantaged communities;” at least “5% be invested in projects that are located within and benefiting individuals living in low-income communities or benefiting low-income households statewide;” and at least 5 % be invested in projects “ benefiting individuals living in low-income communities, or benefiting low-income households that are within one half mile of a disadvantaged community.” <sup>113</sup>

## LABOR

- **AB 794 (Carrillo, Chapter 748, Statutes of 2021):** Created labor and workplace standards that fleet purchasers need to abide by to become eligible for California Air Resources Board (CARB) incentives for new drayage and short-haul trucks. This also includes incentive programs funded through the GGFR.
- **AB 680 (Burke, Chapter 746, Statutes of 2021):** Mandates that CARB collaborate with the Labor and Workplace Development Agency to update the funding guidelines to set workforce standards for certain programs that receive ongoing appropriations from the GGFR by July 1, 2025. It also mandates that the two agencies coordinate with administering agencies to support the implementation process. <sup>114</sup>

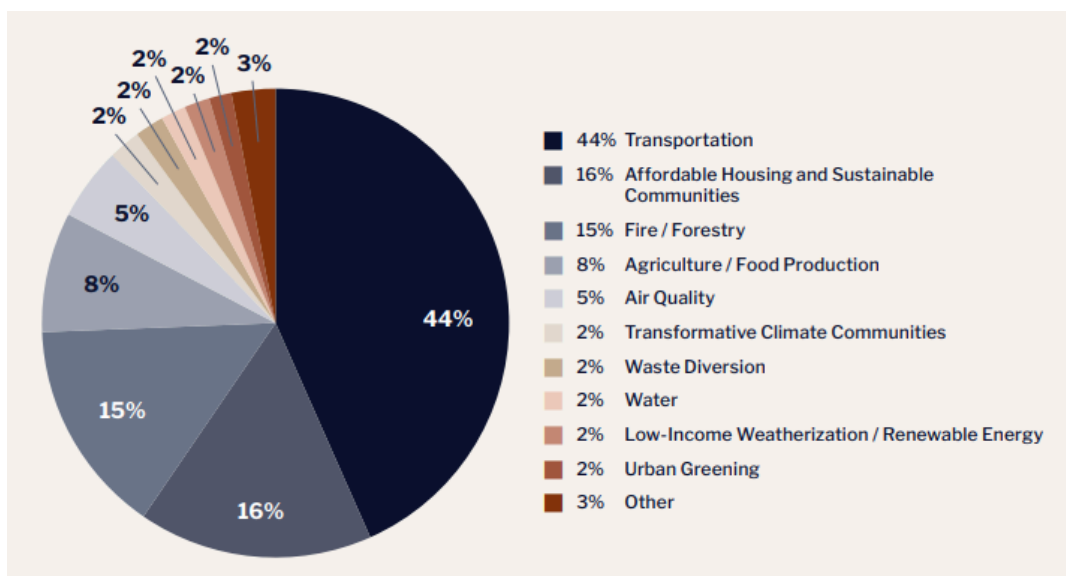
## PROCEDURAL EQUITY

- **Technical assistance (TA):** Various statutes (SB 1072 and AB 2377) have established technical assistance programs and/or components within CCI, such as the Regional Climate Collaborative Program and TA support for selected CCI programs offered by the CDFA.
- **AB 1237 (Aguiar-Curry, Chapter 357, Statutes of 2019):** Establishes requirements instructing agencies how to post the guidelines for the CCI “programs they administer on their website.” <sup>115</sup>

# Funded Programs

There have been over 70 programs created under the CCI umbrella to-date, implemented by over 20 agencies.<sup>116</sup> Due to changes in budget allocations year by year, not all programs are currently in operation. Figure 3 shows funded programs by funding categories.

**Figure 3. GGRF Dollars Implemented by Program Categories as of November 2022 (\$9.2 Billion)**



Source: USC Equity Research Institute analysis of California Air Resources Board Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); California Office of Environmental Health Hazard Assessment, "CalEnviroScreen 4.0," October 2021.

Note: Implemented GGRF dollars used in this analysis exclude the High-Speed Rail Project and administrative costs. The categories listed here were created by the Greenlining Institute and the USC Equity Research Institute. The "Other" category includes programs focused on Land Restoration / Conservation, Training / Workforce, Climate Adaptation, Low Carbon Fuels Production, and Technical Assistance.



# FINDINGS: QUANTITATIVE ANALYSIS OF REPORTED OUTCOMES

In this section, we analyze what we can learn about CCI from a quantitative point of view. Here we use the CCI dataset to create a baseline understanding and to start lifting up important equity questions that the following qualitative sections address. This section looks at where dollars are flowing based on the quantitative data reported by CARB. This section brings up the question: “When dollars are reported as having an equitable impact, do they in practice?” Our quantitative analysis alone cannot answer this but provides a baseline which our subsequent qualitative analyses builds upon.

Broadly speaking, through November 2022, investments through CCI have implemented \$9.3 billion, awarded \$11.8 billion, allocated \$15.5 billion, and have been appropriated \$22.6 billion by the legislature.<sup>117</sup> In this section, we rely on the underlying data published by CARB on the CCI program and conduct our own analyses.<sup>118</sup> As the agency that manages data tracking for CCI, CARB collects data from all state agencies that receive GGRF dollars and implement CCI programs. This is a massive undertaking and relies on reporting from agencies, self-reporting from grantees, as well as using modeling to estimate selected outcomes. A delicate balance must be struck between asking for more data reporting from grantees and not placing a great burden on them. Over the decade of the initiative, CARB has honed its data collection, and continues to do so.

The data analysis shows that, quantitatively, CARB is meeting the legal requirements set out by the State for minimum funding levels to DACs and Low-Income Communities established via SB 535 and AB 1550. We are also able to tell that these dollars are predominantly landing in communities of color. We are able to see that some types of programs, like Transformative Climate Communities and



Affordable Housing & Sustainable Communities, are doing a better job than others at landing in high-need areas. When it comes to environmental benefits, we are also able to tell that diesel particulate matter, NOx, and reactive organic gasses reductions from CCI funding have been especially high in higher-need places—though this may be due to those places having the highest levels of pollutants in the first place. And while a number of co-benefits were recorded, we found there are areas for improving the jobs and economic benefits data.

A few caveats on the data analysis are below. First, of the \$9.3 billion in GGRF dollars that CCI has implemented, we only use \$9.2 billion because this figure excludes “intermediary administrative expenses,” as is CARB’s practice and is the amount subject to minimum investment requirements established under SB 535 and AB 1550. Second, the High-Speed Rail (HSR) Project is not included in the latest version of the CCI database and thus is not included in our quantitative analysis below because the magnitude of funding that it receives makes it an outlier in the dataset and would mask or skew trends. The HSR Project continuously receives 25% of GGRF dollars annually. While it has funded over 20 completed projects and about 30 ongoing projects in segmented construction phases, it has yet to lay any tracks, as our case study later in the report will show, so the outcome data is not very complete. Third, we are only looking at implemented dollars. Unless noted otherwise, we use the Detailed Implemented Project Dataset released with the 2023 Annual Report which reports on projects through November 2022.

Over \$6.7 billion or 73% of the \$9.2 billion are reported to have benefited Priority Populations,<sup>119</sup> which include DACs, low-income communities and households, and low-income communities located within a half-mile buffer of a DAC. These dollars are reported to be benefiting these communities if it can be verified that an affiliated project is geographically landing in the community and is fulfilling a benefit based on a list of possible benefits established by CARB. Within that amount, over \$4.3 billion (47%) has gone towards projects located in and benefiting DACs. DACs are defined as census tracts in the top 25% of overall scores in CalEnviroScreen (CES), tracts lacking CES scores but are among the top 5% of pollution burden scores, census tracts that were considered “disadvantaged” in the previous iteration of CES, and also includes lands under the control of federally recognized Tribes.<sup>120</sup> Over nine million people (23% of the state’s population) live in DAC census tracts who are benefiting from GGRF funds where projects benefiting DACs are located. In these places, over 7.5 million (over 80%) are people of color.<sup>121</sup> This suggests that funding landing in and benefiting DACs (again, \$4.3 billion or 47% of CCI dollars implemented as of November 2022) are likely landing in and providing benefits to communities of color.

## Methodology

CARB’s 2023 Annual Report version of the Detailed Implemented Projects Database showing implemented projects as of November 30, 2022 serves as the basis for the quantitative analysis section. This dataset lists 133,564 records receiving GGRF (133,236 if excluding administrative

projects). Data from the implemented projects database is structured as a project-level dataset, although each record or row in the data set can represent multiple projects. Across the 133,564 records, there are 577,855 projects that have been implemented.

While the dataset includes some geographic data such as census tracts and latitude and longitude coordinates, many of the census tract and latitude/longitude fields list multiple values to represent multiple locations associated with the project. Additionally, project rows differed in whether census tract codes or coordinates were available depending on whether CARB felt it was necessary to anonymize data that might be associated with individuals as recipients or beneficiaries of the project rather than an office or more general neighborhood where a program took place.

For our analysis, we wanted to see where funds were going in a detailed way with a focus on communities experiencing the most environmental burden. In order to answer questions about whether funding is being distributed equitably, the dataset was reformatted to represent one census tract per row with all original nominal variables attached. A crosswalk was created to populate the reformatted dataset with both 2019 and 2020 census tract IDs, as census tract boundaries and IDs may change every decade. For analyses involving locating projects within boundaries other than census tracts and do not neatly line up with census tracts such as Disadvantaged Unincorporated Communities (DUCs) or Urban/Rural areas, rows that originally only had census tract data were assigned latitude and longitude coordinates based on the midpoint of the tract. All projects disaggregated by location were then mapped in GIS software and intersected with these other shapefile boundaries to identify the possibility of funding going towards these areas.

In disaggregating rows that originally had multiple geographical locations, some assumptions had to be made about how numeric fields such as funding and pollution reduction amounts were redistributed across new rows. The best option with a lack of additional information was to assume these amounts were distributed evenly across tracts that were disaggregated into separate rows. This method was chosen in order to not inflate the total project funding and pollution reduction amounts for the entire database by attributing the entirety of a project funding to each geography associated with it.

This method differs from CARB's approach in the agency's annual reports, and as a result our results will differ. In cases where projects are attributed to multiple counties, CARB attributed the entirety of the funding towards all of those counties. For example, under CARB's methodology, a project that is recorded as receiving \$10,000 in funding, reducing 100 metric tons of CO<sub>2</sub>, and is tagged as benefiting two different counties would count \$10,000 in funding and 100 metric tons of CO<sub>2</sub> reduced twice—once towards each of those counties. This ends up inflating the total funding and pollution reduction amounts due to this double-counting.

Our method instead splits the \$10,000 and 100 metric tons of CO<sub>2</sub> attributed to the two hypothetical counties, assigning each with \$5,000 and 50 metric tons of CO<sub>2</sub> reduced. Again, the dataset doesn't provide detail on how funding is actually distributed across multiple geographies but this provides a more conservative estimate for a geographical analysis without inflating the total amounts across all

implemented projects. Once this dataset was reformatted and disaggregated to represent one census tract per row, census tracts could be re-aggregated into larger geographies such as counties or custom geographies not necessarily defined by the Census Bureau and not available in the CCI database like “Nine-County Bay Area.”

An additional set of analyses was made possible after matching in the CCI dataset by census tracts with the CalEnviroScreen 4.0 data and demographic data from the Census Bureau’s American Community Survey 2015-2019 5-year estimates. The 2015-2019 5-year estimates were used because a majority of the projects in the dataset were implemented before 2020 and CES 4.0 is primarily based off of 2015-2019 5-year estimates as well. Something to note is that the definition for CalEnviroScreen scores has changed over time as the underlying data gets updated and becomes more comprehensive. For the purposes of this analysis, we only looked at geographies receiving funding for CCI projects and their latest CES 4.0 scores.

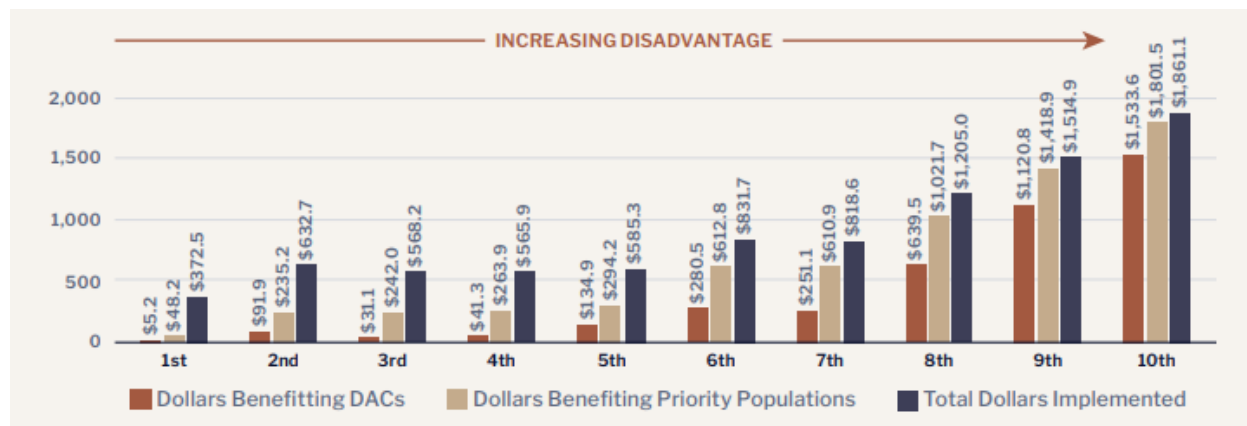
We’d like to reiterate this methodological process is meant to illustrate how much more powerful this dataset could be and what types of findings could be revealed if improvements are made to the data reporting and data collection process to share more detail on the geographic distribution of funding. Not only are we limited by lack of information on the distribution of funding across projects tagged with multiple geographies, but there is not enough information to determine the true meaning of some of these geographies and if they refer to end recipients or offices of funding administrators.

We acknowledge that this serves as an experiment in demonstrating the potential impact of the CCI database if improvements are made for accessibility and ease of use by community advocates and stakeholders that may not be as data-savvy to replicate our methodology. If the dataset were provided to the public in a manner where a local community organization can more easily and quickly determine how much funding is going towards their region of interest and what those programs are, they would be better equipped to identify gaps in programs and funding and better advocate for their community’s needs.

## Geography

Part of understanding how equitably these dollars are being invested is understanding where they are being invested. Figure 4 shows the GGRF dollars going to each of the CES deciles. Following the blue bars, the chart shows that, generally speaking, implemented GGRF funding increases with the deciles. Implemented dollars in Priority Populations follow the same trend, as do implemented dollars funding projects within DACs, but with a less smooth curve. GGRF monies (projects) are only missing in 18 DAC tracts (0.8% of all DAC tracts) which are all located in Los Angeles and one in San Bernardino Counties. See Appendix C for more on the distribution of DACs by counties.

**Figure 4. GGRF Dollars Implemented (as of November 2022) by CalEnviroScreen 4.0 Deciles (\$ in Millions)**



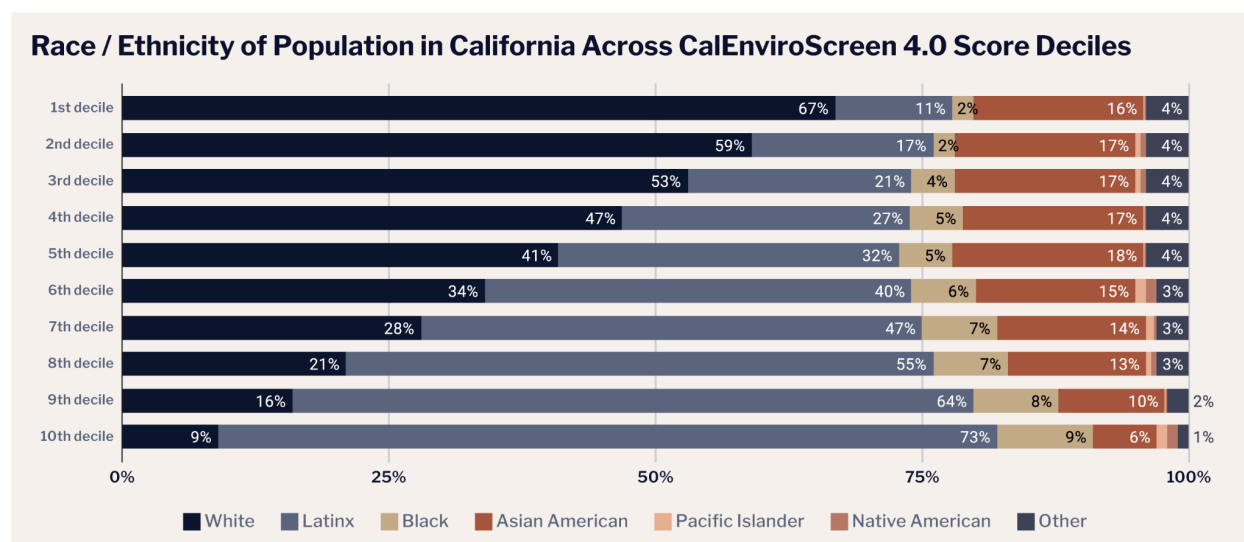
Source: USC Equity Research Institute analysis of California Air Resources Board Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); California Office of Environmental Health Hazard Assessment, “CalEnviroScreen 4.0,” October 2021.

Note: Implemented GGRF dollars used in this analysis exclude the High-Speed Rail Project and intermediary administrative expenses. While “DACs” are generally understood to represent census tracts receiving the top quartile of CalEnviroScreen (CES) scores, they also represent those lacking CES scores but receiving the highest 5 percent of CES cumulative pollution burden scores; those previously identified as DACs in the 2017 designation; and lands under the control of federally recognized Tribes.

All of this comes as little surprise, given that SB 535 and AB 1550 require minimum investment levels to these communities. What this data does not show us is the quality of these investments in Priority Populations, which includes DACs in addition to other areas not captured by DACs such as low-income communities and households.<sup>122</sup> One interviewee said, “It seems like that there were many, many investments that were classified as being beneficial to disadvantaged communities because they were located in disadvantaged communities, but it included projects that were not identified as community identified priorities.” The subsequent sections of this report help us to understand how these dollars are being implemented so that we can make an equity assessment.

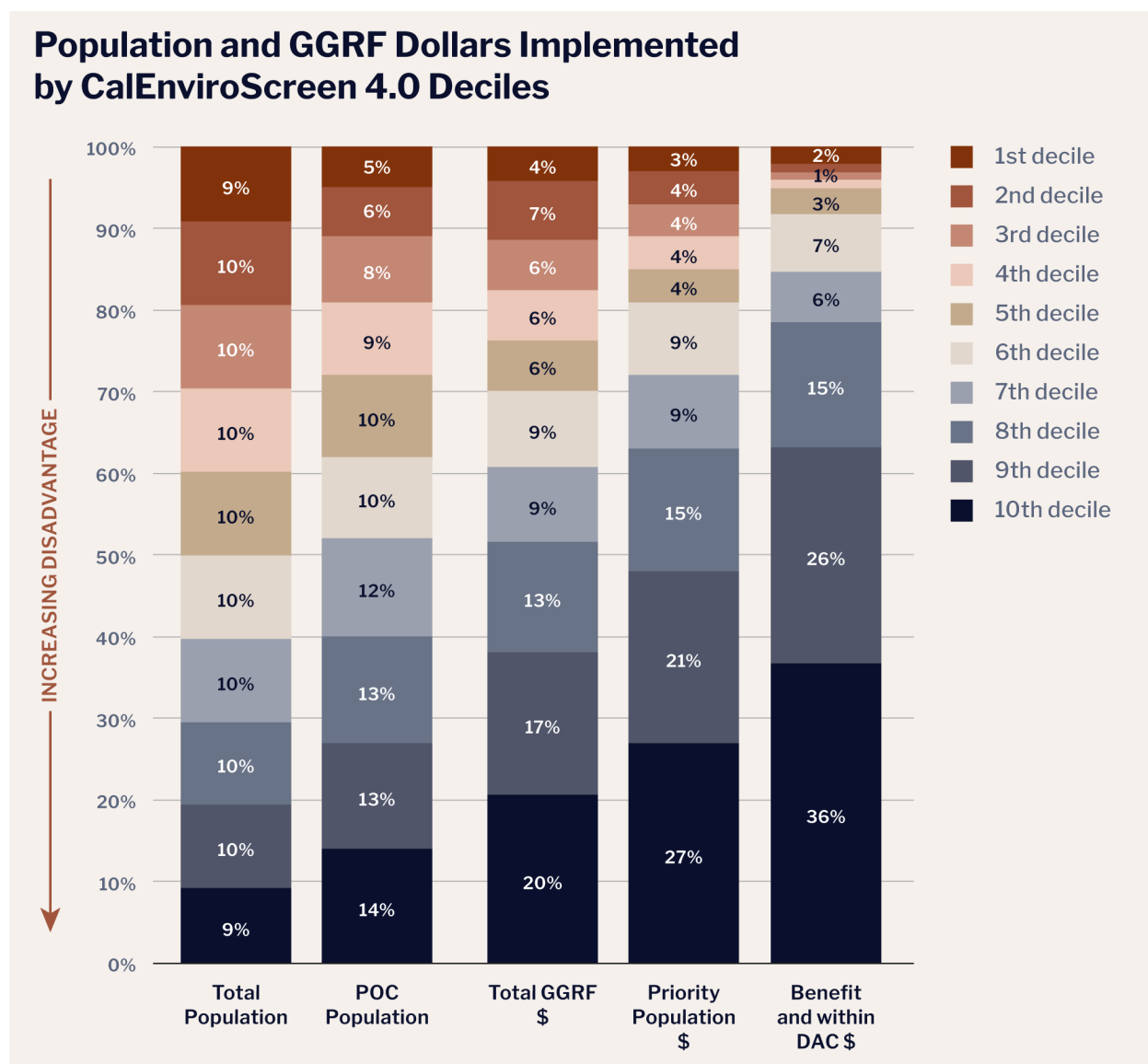
Figure 5 brings population and race/ethnicity into the conversation. It shows racial/ethnic distribution of people across the CES deciles. In short, the higher the percentile, the higher the shares of Latinx and Black Californians. The next chart, Figure 6, shows that the total population is spread fairly evenly across the CES deciles. However, the more burdened deciles have higher shares of people of color, which based on our understanding from Figure 5, really means more Latinx and Black residents since the percent AAPI tends to fall off in the more highly ranked deciles. The three bars to the right show that it is also the highest deciles that receive greater amounts of GGRF funding—especially funding benefiting DACs.

**Figure 5. Race / Ethnicity of Population by CalEnviroScreen 4.0 Score Deciles**



Sources: USC Equity Research Institute (ERI) analysis of U.S. Census Bureau, “American Community Survey (ACS) 2015-2019”; USC ERI analysis of California Office of Environmental Health Hazard Assessment, “CalEnviroScreen 4.0,” October 2021. Note: Labels not shown included values less than 1%.

**Figure 6. Population and GGRF Dollars Implemented by CalEnviroScreen 4.0 Deciles**



Sources: USC Equity Research Institute (ERI) analysis of California Air Resources Board, “Detailed Implemented Projects Dataset,” as of November 30, 2022; USC ERI analysis of California Office of Environmental Health Hazard Assessment, “CalEnviroScreen 4.0,” October 2021. Note: Implemented GGRF dollars used in this analysis exclude the High-Speed Rail Project and intermediary administrative expenses. “DAC” references “Disadvantaged Communities”; while “DACs” are generally understood to represent census tracts receiving the top quartile of CalEnviroScreen (CES) scores, they also represent those lacking CES scores but receiving the highest 5 percent of CES cumulative pollution burden scores; those previously identified as DACs in the 2017 designation; and lands under the control of federally recognized Tribes. Labels not shown included values 1% and under.

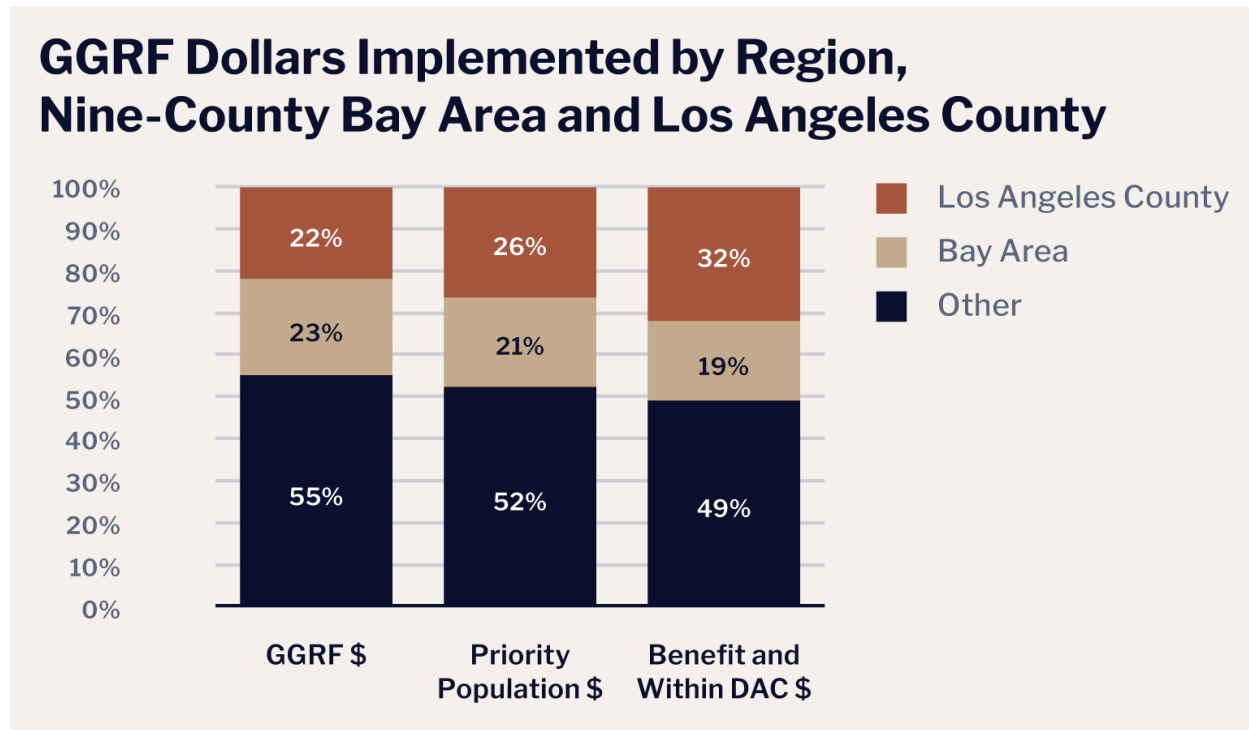


An important nuance that came up through our interviews was how GGRF dollars were reaching Disadvantaged Unincorporated Communities (DUCs).<sup>123</sup> DUCs are unincorporated communities that struggle to attract dollars because, largely, they lack a government to support infrastructure projects.<sup>124</sup> DUCs are communities that have been excluded from incorporation and, so, have less reliable access to basic infrastructure, such as gas line extensions, water quality access, and other services that surrounding municipalities provide.<sup>125</sup> Cities have excluded, disinvested, and harmed surrounding Black communities and people of other marginalized backgrounds, keeping and pushing them into these areas of concentrated poverty.<sup>126</sup>

Using DUC boundaries produced by RSG, Inc. for California Association of Local Agency Formation Commissions (CALAFCO), we were able to map projects from the CCI database across DUC boundaries and learned that of the \$9.2 billion in GGRF money subject to funding minimums, 3% were identified to potentially benefit projects located in Disadvantaged Unincorporated Communities. Over 1.5 million people in California reside in a DUC, making up 4% of the total population. While the share of GGRF dollars going to DUCs is similar to their share of the population, DUCs have been historically disinvested and have higher baseline needs for investments; taking a reparative and distributive equity stance would look like centering these communities to ensure they can access more than just a proportional share of investments.

In regards to regional variations across the state, CalEnviroScreen has created some fractures between the Bay Area and Los Angeles because scores are relative to the state, instead of regional. Los Angeles shows up as having more burden—and then those regions would seem to be slated to receive more state dollars.<sup>127</sup> According to our analysis of the nine-county Bay Area and Los Angeles County, they have received similar shares of implemented GGRF dollars as of November 2022, 23% and 22%, respectively. Figure 7 shows that the Bay Area has received 21% of priority population dollars and 19% of dollars benefiting DACs that are also in DACs and that Los Angeles has received 26% and 32%, respectively. For reference, 20% of the state's population lives in the Bay Area and 26% in Los Angeles County, with 6% and 51% of the state DACs, respectively. Figure 8 shows the populations by decile. Half of Los Angeles County's population lives in a DAC, compared to 9% of the nine-county Bay Area's population.<sup>128</sup>

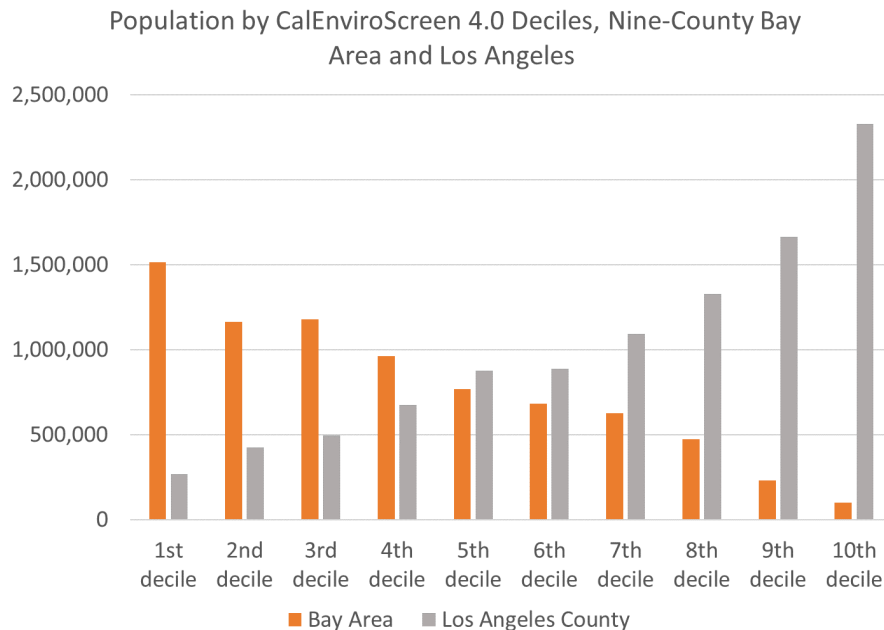
**Figure 7. GGRF Dollars Implemented by Region, Nine-County Bay Area and Los Angeles County**



Sources: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); U.S. Census Bureau, “American Community Survey (ACS) 2015-2019”.

Note: GGRF amount refers to the \$9.2 billion implemented as of November 2022 and excludes the High-Speed Rail Project and intermediary administrative expenses.

**Figure 8. Population by CalEnviroScreen 4.0 Deciles, Nine-County Bay Area and Los Angeles**

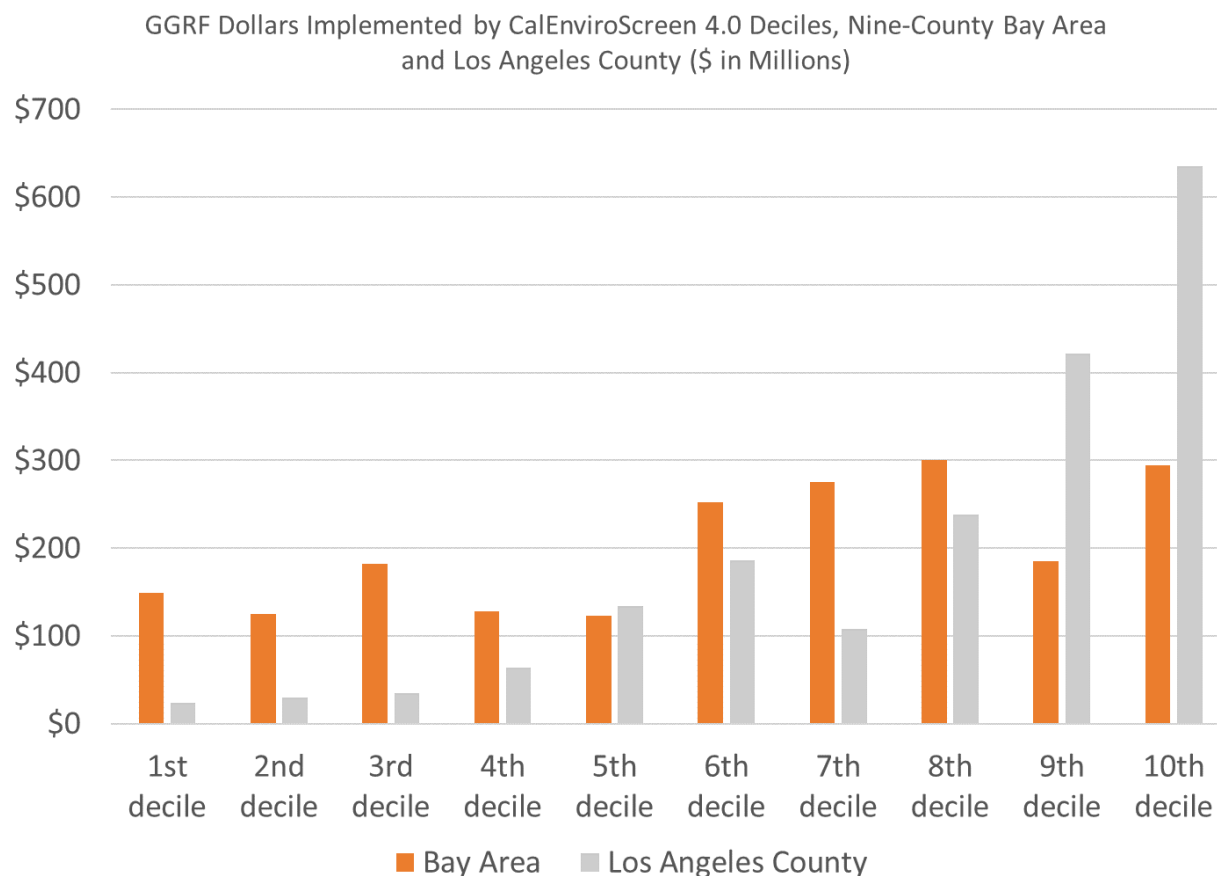


Sources: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); U.S. Census Bureau, “American Community Survey (ACS) 2015-2019”.

Note: GGRF amount refers to the \$9.2 billion implemented as of November 2022 and excludes the High-Speed Rail Project and intermediary administrative expenses.

We also looked at more detailed funding-to-population ratios. Figure 9 suggests that Los Angeles County receives more total funding in the ninth and 10th deciles of areas receiving the highest CES scores than the Bay Area does. However, when looking at per capita funding as seen in Figure 10, the Bay area appears to receive the most GGRF funds per capita in nearly all deciles where Los Angeles County begins to trail behind the Bay Area in all of the upper deciles. See Appendix C for more data comparing the nine-County Bay Area with LA County.

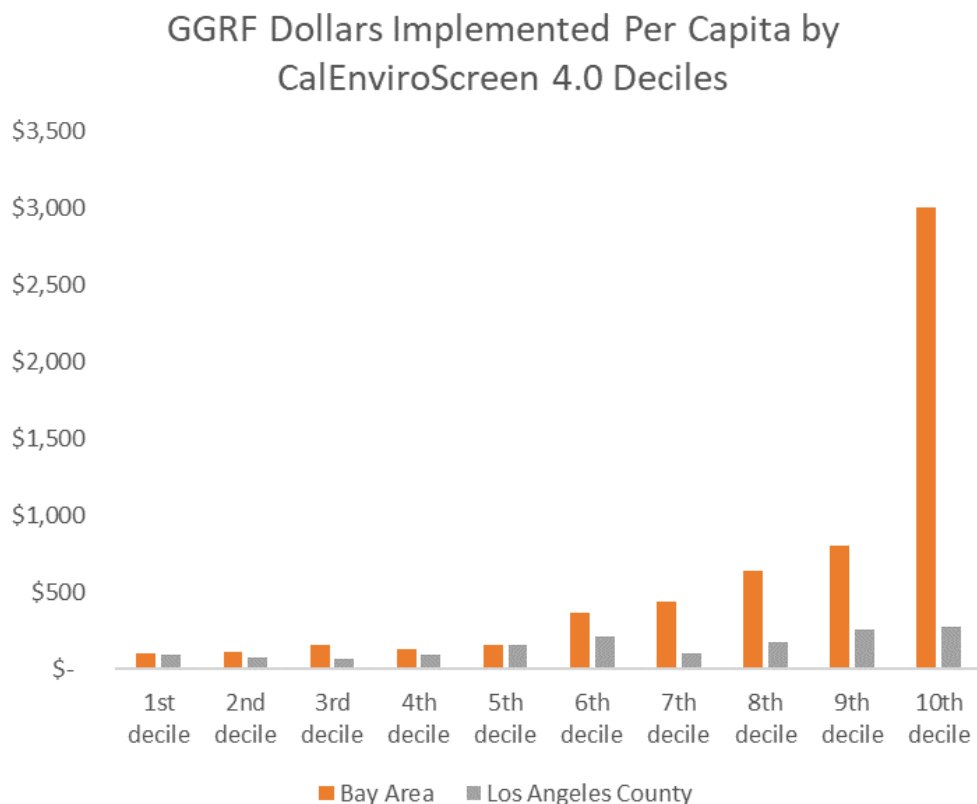
**Figure 9. GGRF Dollars Implemented by CalEnviroScreen 4.0 Deciles, Nine-County Bay Area and Los Angeles (\$ in Millions)**



Sources: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); U.S. Census Bureau, "American Community Survey (ACS) 2015-2019".

Note: GGRF amount refers to the \$9.2 billion implemented as of November 2022 and excludes the High-Speed Rail Project and intermediary administrative expenses.

**Figure 10. GGRF Dollars Implemented Per Capita by CalEnviroScreen 4.0 Deciles (\$ in Millions)**



*Sources:* USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); U.S. Census Bureau, “American Community Survey (ACS) 2015-2019”.

*Note:* GGRF amount refers to the \$9.2 billion implemented as of November 2022 and excludes the High-Speed Rail Project and intermediary administrative expenses.

There is also the question of how the money is implemented across urban and rural places in the state. According to a 2017 report by the Center on Race, Poverty & the Environment (CRPE), a longstanding environmental justice advocacy organization, “Current municipal, regional, and statewide policies further disadvantage low-income, rural communities through programs, funding formulas, and eligibility criteria that favor larger, wealthier regions.”<sup>129</sup> Our analysis shows that, indeed, rural areas receive 25% or less of CCI dollars.<sup>130</sup> For context, approximately 92% of DAC tracts are in urban areas and the rest are considered to be in rural areas. Making up 81% of all programs funded in rural areas are those that fall under the transportation, fire/forestry, and agriculture/food production categories.<sup>131</sup> DAC definition favors urban areas partly because the CalEnviroScreen scores it is based on rely on census tracts rather than census blocks and census designated places that typically

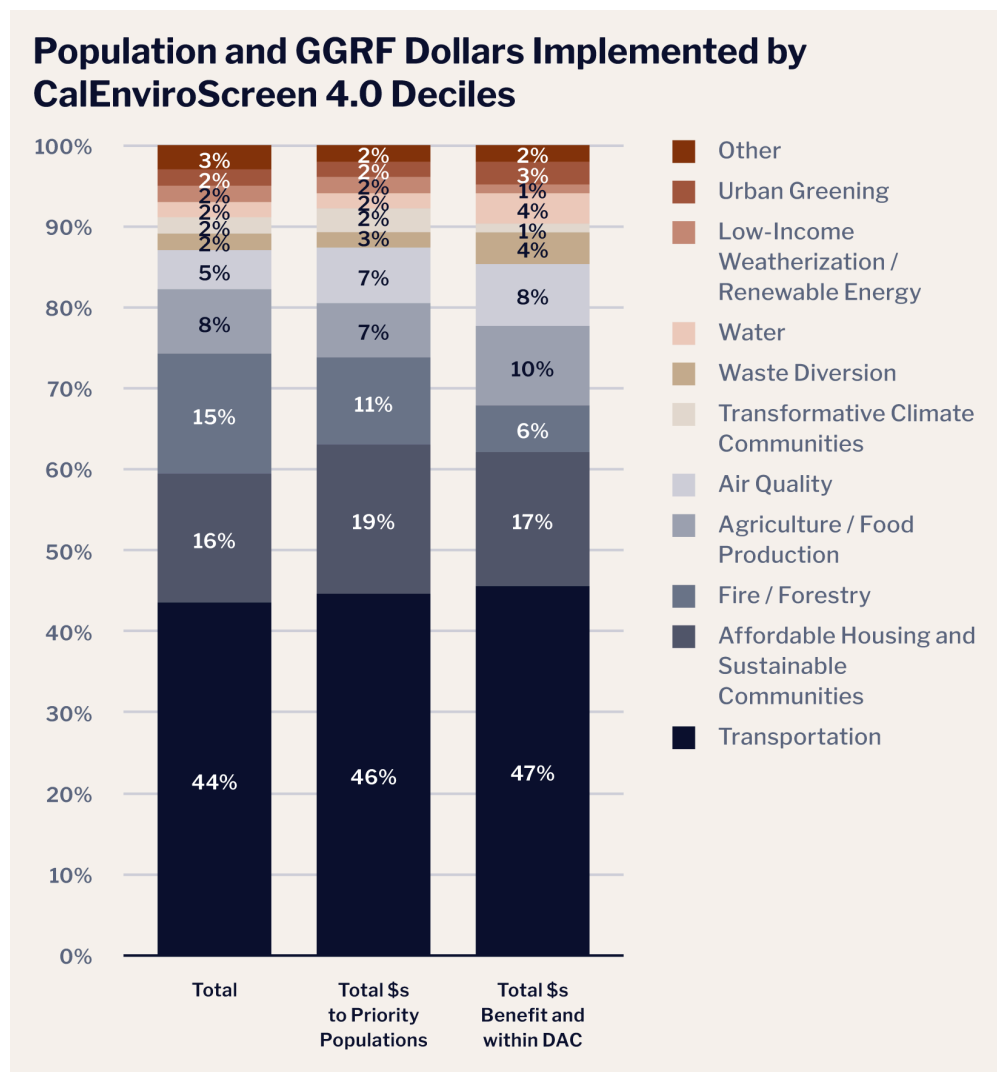
represent the less populated rural areas.<sup>132</sup> By design, CalEnviroScreen is meant to be a tool for statewide analysis and does not include region-specific data.<sup>133</sup> See Appendix C for more charts and tables on the geographical distribution of CCI funding including by county (total funding and per capita) and by policy requirements.

## Programs

Figure 11 below shows the allocation of GGRF dollars across program categories (see Appendix A for detail on those categories). Even without High-Speed Rail's 25% appropriation from GGRF, transportation comprises over 40% of implemented projects. Reading from left to right bars, the first bar shows all implemented dollars excluding administrative costs and High-Speed Rail. The second bar shows how implemented dollars are spread across the categories in priority populations, and the final bar shows how dollars that have benefits within DACs are spread across categories. About half of all GGRF funds go to rail and affordable housing. Funding that disproportionately benefits Priority Populations and DACs include transportation, affordable housing, air quality, transformative climate community, and low-income weatherization (namely DACs).



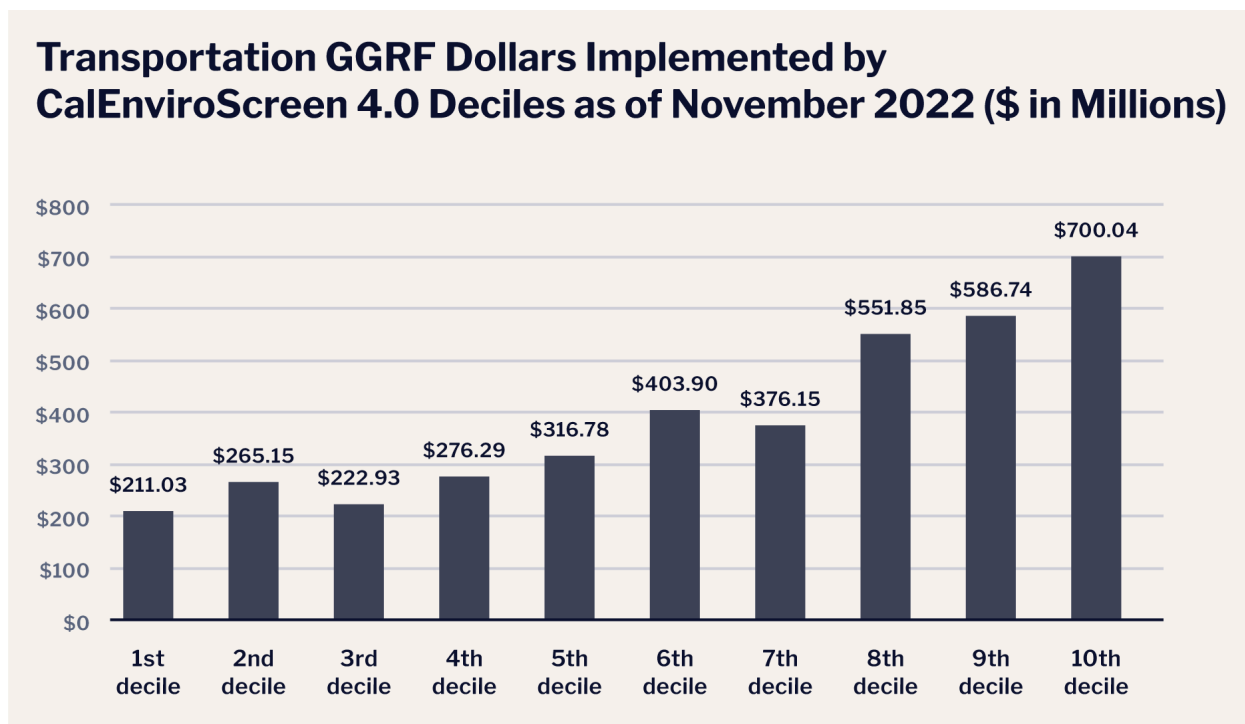
**Figure 11. GGRF Dollars Implemented by Program Categories as of November 2022 (\$9.2 Billion)**



Source: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022). Note: GGRF amount refers to the \$9.2 billion implemented as of November 2022 and excludes the High-Speed Rail Project and intermediary administrative expenses. “Other” category includes programs falling under Land Restoration / Conservation, Training / Workforce, Climate Adaptation, Low Carbon Fuels Production, and Technical Assistance. Refer to Appendix A for a full list of programs, subprograms, and custom categories.

And where are these programs funneling their implemented dollars? We took the same categories and looked at their equity trends. We will start with the biggest spending categories. Figures 12 and 13 show how implemented transportation dollars are spread across the deciles, reflecting a strong equity curve. Unsurprisingly, affordable housing follows a similar trend, with the largest spending amounts in the final five deciles.

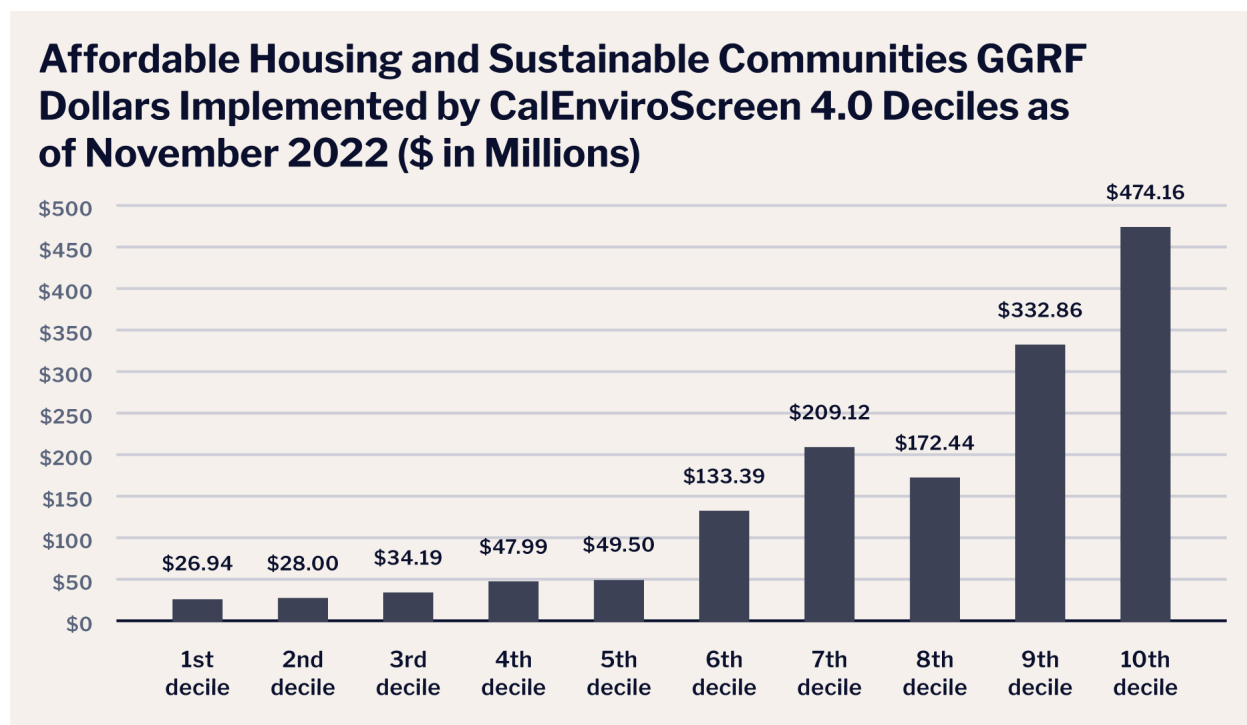
**Figure 12. Transportation GGRF Dollars Implemented by CalEnviroScreen 4.0 Deciles as of November 2022 (\$ in Millions)**



Source: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022).

Note: GGRF amount refers to the \$9.2 billion implemented as of November 2022 and excludes the High-Speed Rail Project and intermediary administrative expenses.

**Figure 13. Affordable Housing and Sustainable Communities GGRF Dollars Implemented by CalEnviroScreen 4.0 Deciles as of November 2022 (\$ in Millions)**

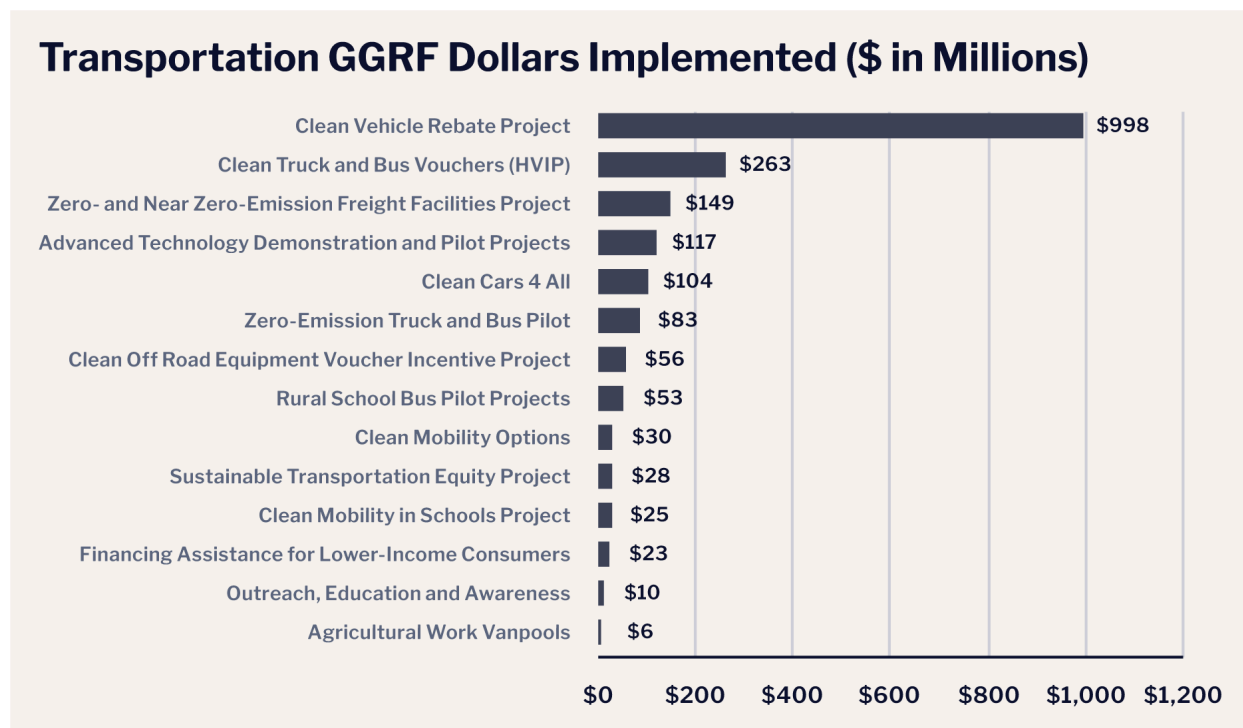


Source: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022).

Note: GGRF amount refers to the \$9.2 billion implemented as of November 2022 and excludes the High-Speed Rail Project and intermediary administrative expenses.

Transportation consists of a variety of subprograms. Figure 14 shows a breakdown of funding and one can note that High Speed Rail continues to not be part of this analysis because of the scale of those resources. The Clean Vehicle Rebate Program also receives outsized funding followed by HVIP which is one of the programs we highlight in our case studies in section 6. There are other programs within CCI (e.g., Transformative Climate Communities, Community Air Protection Incentives) which can be used for clean transportation investments among other activities. This list only includes programs that are primarily focused on transportation and may not be representative of all CCI dollars that have been used in some way for transportation investments to date.

**Figure 14. Transportation GGRF Dollars Implemented (\$ in Millions)**

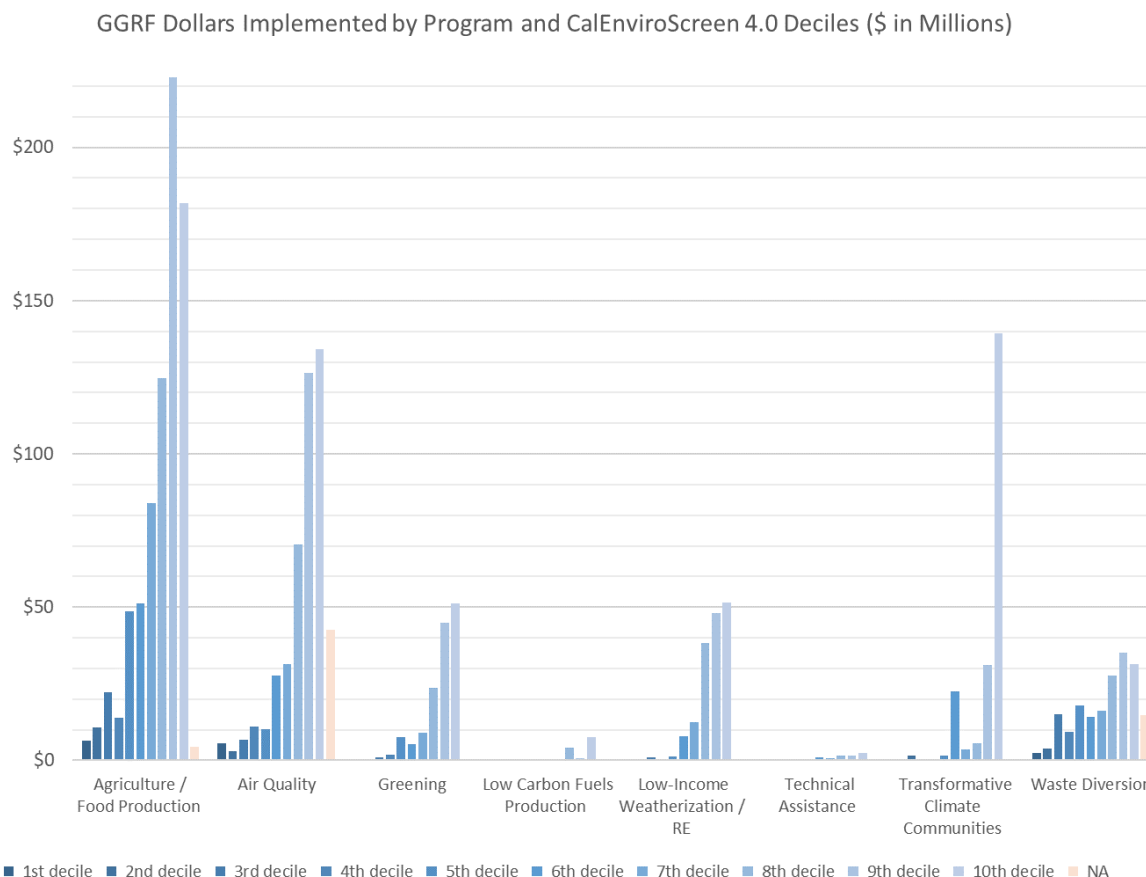


Source: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022).

Note: GGRF amount refers to the \$9.2 billion implemented as of November 2022 and excludes the High-Speed Rail Project and intermediary administrative expenses.

Figure 15 shows the other programs that have equity trends in how their dollars have been implemented. Agriculture / Food Production and Air Quality spending comprise larger sums of overall spending. However, our qualitative work shows that Dairy Digester programs, while receiving funds that are counting towards equity requirements, are not equitable in their implementation and impact. When we removed it from the Agriculture / Food Production category, we found the category retained its “equity curve” of higher funding amounts landing in Disadvantaged Communities, and that Dairy Digesters, individually, has an equity curve; its funds mostly land into the ninth and 10th percentiles of CalEnviroScreen. This is one place where the data would lead us to believe equity is being advanced based on a quantitative analysis of the CCI database; however, discussions with EJ advocates living in those communities reveal this is not the case. Transformative Climate Communities (TCC) has perhaps the greatest success at moving funds to the most highly vulnerable communities, with around \$140,000 reaching the tenth decile. Our discussions with TCC funding recipients further confirmed that while awards are difficult to secure, they do appear to provide meaningful benefits to communities that need it most.

**Figure 15. GGRF Dollars Implemented by Program Categories and CalEnviroScreen 4.0 Deciles as of November 2022 (\$ in Millions)**

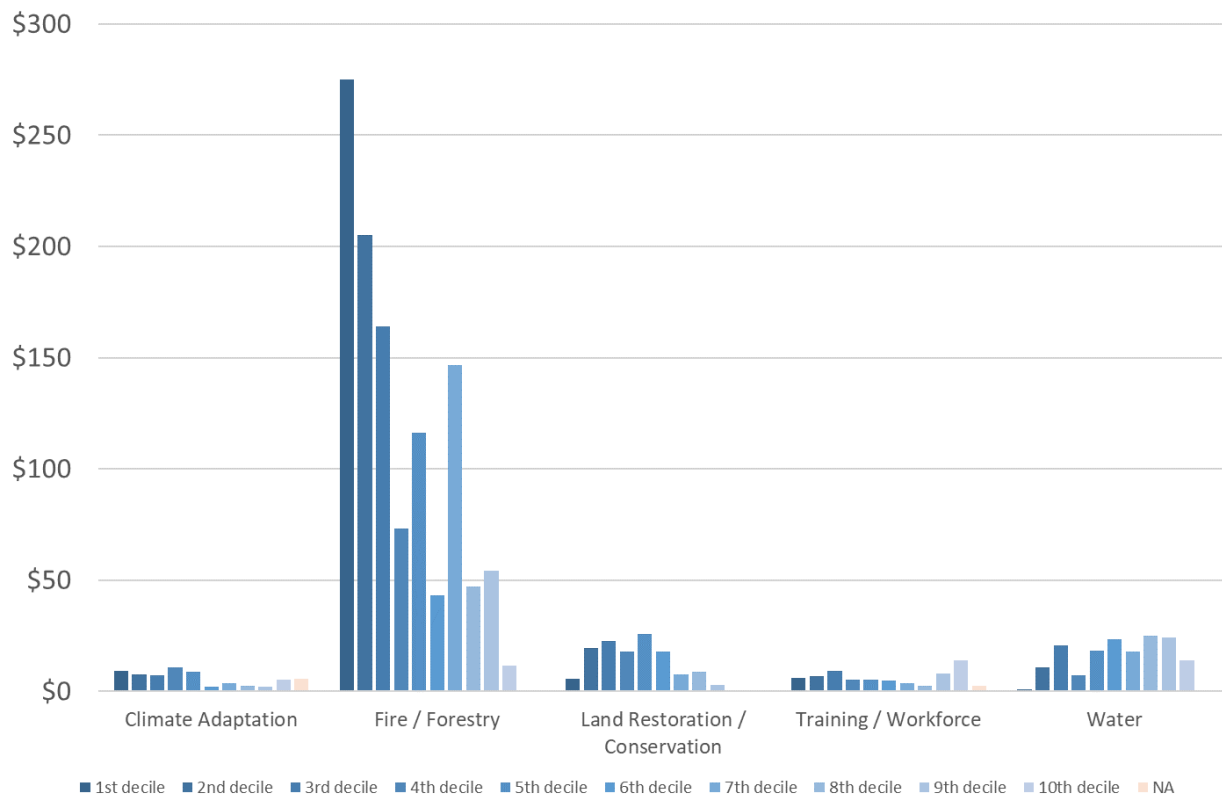


**Sources:** USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); California Office of Environmental Health Hazard Assessment, "CalEnviroScreen 4.0," October 2021.

**Note:** "Regional Forest and Fire Capacity" was included under forestry. "Urban Greening" was the only subprogram added to "Greening". All others lined up with either Fire or Forestry. GGRF amount refers to the \$9.2 billion implemented as of November 2022 and excludes the High-Speed Rail Project and intermediary administrative expenses.

Figure 16 shows those programs that do not seem to be funding in the direction of equity. Given the high concentration of DACs in urban areas, it is not surprising that fire/forestry has a varied curve. The qualitative research later in this report will shed more light on this trend and that there are important forestry projects supporting the work of Indigenous and rural communities and that communities like Richmond have successfully captured greening dollars that are making an impact. Our case study on SALC confirms concerns around the limited ability for Land Restoration and Conservation programs to provide meaningful benefits to Priority Populations.

**Figure 16. GGRF Dollars Implemented by Program Categories and CalEnviroScreen 4.0 Deciles as of November 2022 (\$ in Millions)**



**Sources:** USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); California Office of Environmental Health Hazard Assessment, “CalEnviroScreen 4.0,” October 2021.

**Note:** “Regional Forest and Fire Capacity” was included under forestry. “Urban Greening” was the only subprogram added to “Greening”. All others lined up with either Fire or Forestry. GGRF amount refers to the \$9.2 billion implemented as of November 2022 and excludes the High-Speed Rail Project and intermediary administrative expenses.

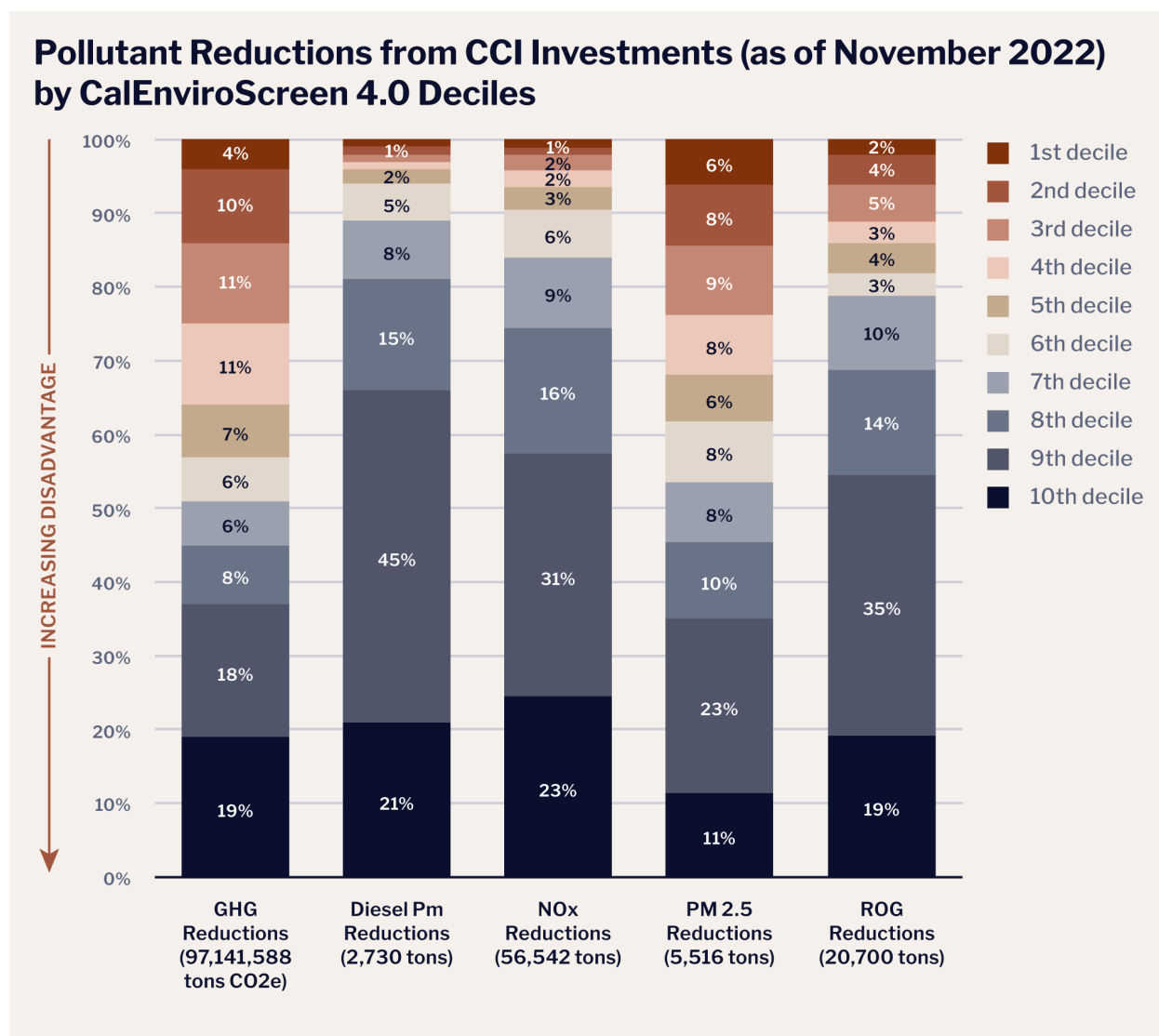
## Co-pollutants

One of the primary goals of CCI is to reduce carbon emissions. As such, most projects are required to report on greenhouse gas emission reductions. Figure 17 shows that the greatest estimated reductions are in the highest CES deciles: 19% in the 10th decile and 18% in the ninth decile. The next largest reductions are in the fourth, third, and then second deciles. A higher percentage of reductions occurs where there is a higher share of the pollution. This is to be expected, and it could mean a flat



percentage reduction for each decile. While reducing emissions is critical, as we laid out in section 2, equity is a critical component to abating climate change and further investigation reveals a more nuanced story.

**Figure 17. Pollutant Reductions from CCI Investments (as of November 2022) by CalEnviroScreen 4.0 Deciles.**



Sources: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); California Office of Environmental Health Hazard Assessment, “CalEnviroScreen 4.0,” October 2021.

Note: GGRF amount refers to the \$9.2 billion implemented as of November 2022 and excludes the High-Speed Rail Project and intermediary administrative expenses. Bars with missing labels have values of less than 1%.

Equity proponents—namely climate and EJ stakeholders—name GHG co-pollutants (e.g., Diesel PM, NOx, PM 2.5) as a key concern. With some viewing CCI as a concession for cap-and-trade, EJ stakeholders have a high bar for seeing reductions in co-pollutants, that is, hazardous emissions that are also released along with carbon dioxide during fossil fuel combustion. Since its inception, CCI projects have been reported to reduce large amounts of co-pollutants across the state: 97,141,588 metric tons of CO2 equivalents, 2,730 tons of Diesel PM, 56,542 tons of NOx, 5,516 tons of PM 2.5, and 20,700 tons of Reactive Organic Gas (ROG).

To better understand what these numbers mean, we provide some context: 97,141,588 metric tons of CO2 equivalents is similar to the annual CO2 emissions of over 21.1 million passenger cars per year.<sup>134</sup> In terms of Diesel PM, the San Bernardino Railyard alone is responsible for releasing 22 tons of Diesel PM annually, therefore CCI funding is reported to have removed the equivalent of about 124 railyards worth of Diesel PM over time.<sup>135</sup> Over 177,000 tons of NOx is released from California soils annually; about three times what CCI cut.<sup>136</sup> In 2020, wildfires in California, which burned 4.2 million acres, were estimated to have released 1,181 tons of PM 2.5. This figure multiplied by five is the amount of PM 2.5 that would have been released without CCI programs.<sup>137</sup> Meanwhile, in the San Joaquin Valley alone, dairies have been found to release 24 tons of ROG per day while CCI has cut about the same as 2.4 years of ROG releases from such dairies.<sup>138</sup>

Figure 18 shows the aggregate reductions attributable to CCI projects by CES deciles.<sup>139</sup> Disproportionately large reductions have been estimated for the highest deciles for each co-pollutant except PM 2.5. This may be due in part to these places having the most emissions to begin with. And, while CCI projects may be resulting in reductions, we make no claim about overall reductions in the state or in particular communities. It is possible that while CCI projects are causing reductions, overall emissions in the state or in particular communities could be stable or increasing.

Additionally, while there are cumulative reductions, there can also be instances of increases caused by CCI investments, but these are typically considered a tradeoff with programs that bring benefits that offset or counteract these increases. One example of this that is not immediately apparent in the dataset but was explained in a conversation with CARB is the Healthy Soils Projects which reduce PM 2.5 but will result in some NOx emissions. Another example involves Woodsmoke Reduction Programs which reduce PM 2.5 but result in small amounts of NOx emissions.<sup>140</sup>

We looked at the projects responsible for increases in co-pollutants and the places where these increases occurred. Some increases were expected such as GHG increases from the Forest Health Program due to the release of carbon from prescribed and cultural burns. There were other individual projects that resulted in GHG increases which mostly occurred under Community Air Protection Incentives and Transit and Intercity Rail Capital Programs.

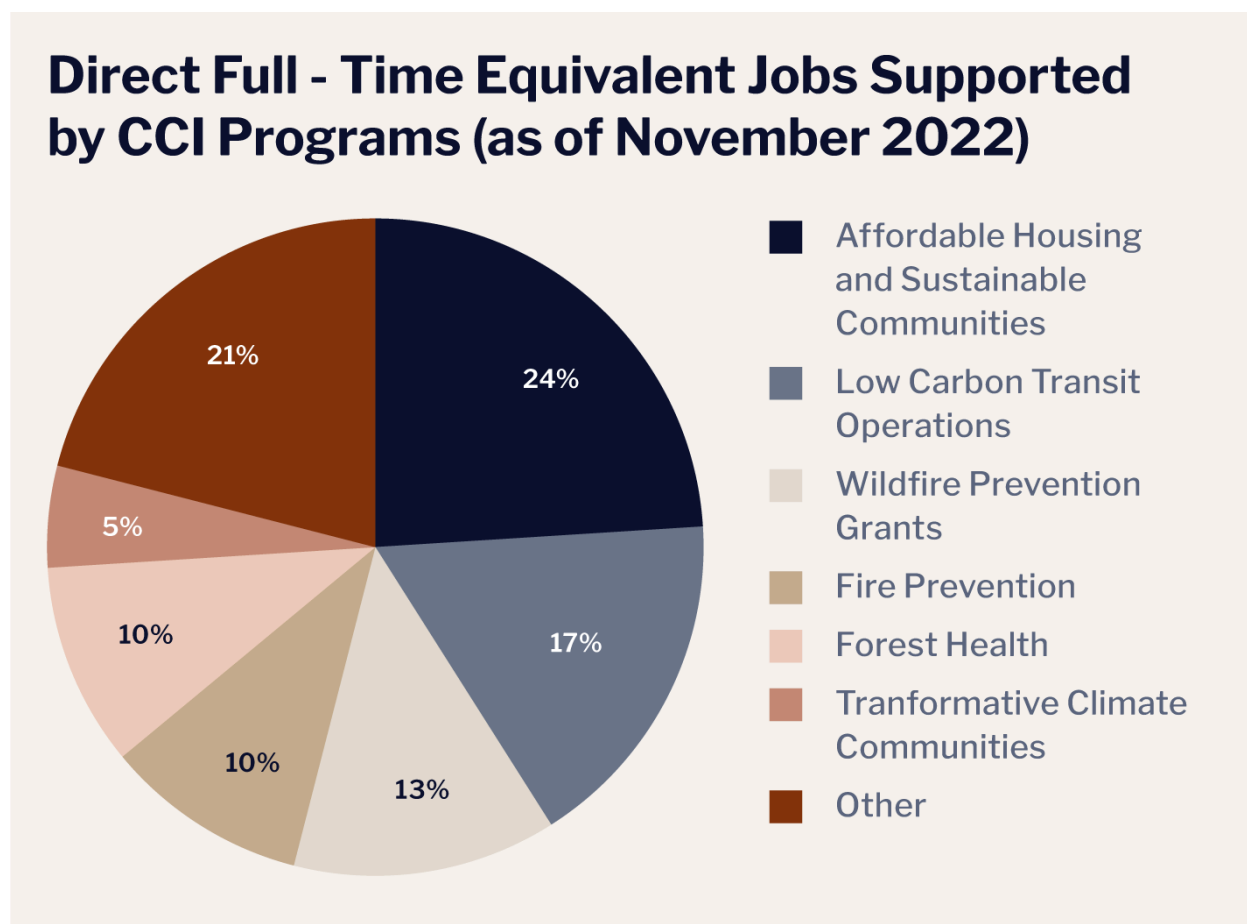
While the exact geographical distribution of programs with co-pollutant increases is hard to accurately assess, Stanislaus and San Joaquin counties may be most impacted by projects with the largest increases in Diesel PM, with increases of nearly 14,000 lbs and over 1,200 lbs in Diesel PM,

respectively. Meanwhile, projects with increases in NO<sub>x</sub> most impacted Stanislaus (377,000 lbs), Contra Costa (140,000 lbs), San Francisco (132,000 lbs), Riverside (82,000 lbs), and Sutter (25,000) counties. Among projects with PM 2.5 increases, Tulare, Imperial, Merced, Kern, and Kings counties may be most impacted, while Stanislaus, Los Angeles, Alameda, and Contra Costa counties housed projects with the most increase in ROG. While many of these increases in pollutants may be expected as tradeoffs (as in the case of Woodsmoke Projects and Healthy Soils Projects reducing PM 2.5 but increasing some NO<sub>x</sub>), more accessible data would enable communities to more easily monitor how they are being impacted by CCI.

## Co-benefits

CARB quantifies the co-benefits that come with CCI, including reclaimed food (about 216,000 tons), affordable housing (about 10,000 units), vehicle miles traveled reductions (about 71.5 billion miles), jobs, and more in addition to various project outcomes. Job creation is an important equity metric as it can lead to economic opportunities and wealth building. Figure 18 shows the direct full-time equivalent jobs, based on modeling, to be delivered by CCI programs. About 26,100 full time jobs are estimated to have been directly supported by CCI projects, nearly a quarter of which are made possible through Affordable Housing and Sustainable Communities programs, followed by Low Carbon Transit Operations Programs. About 33% of jobs are related to fire prevention and forest health. CCI dollars are also estimated to have funded about 7,300 indirect and nearly 13,800 induced jobs that result from the increased economic activity created by these investments. A very small number of jobs—but concerning nonetheless—funded by CCI were funneled to fund work by incarcerated firefighters.<sup>141</sup>

Figure 18. Direct Full-Time Equivalent Jobs Supported by CCI Programs (as of November 2022)



Source: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022).

Note: GGGRF amount refers to the \$9.2 billion implemented as of November 2022 and excludes the High-Speed Rail Project and intermediary administrative expenses.

While this analysis has typically excluded High-Speed Rail (HSR) because it overwhelms the other programs, HSR has been known to produce some of the best job outcomes among CCI programs. Based on data from the 2022 Mid-Year update of the California Climate Investments dataset, the High-Speed Rail Project was responsible for directly creating 9,552 jobs, and recently reported producing “11,000 good-paying labor jobs.”<sup>142</sup> Moreover, it ensures that low-income communities of color and Disadvantaged Workers in the region receive specific workforce development, job training, and employment opportunities.<sup>143</sup> Their Central Valley Training Center (CVTC) comprehensively trains and provides certifications for at-risk young adults, veterans, and low-income populations in various trades at no-cost, producing over 100 graduates since launching in 2020.<sup>144</sup>

## Recommendations for CARB:

Based on our analysis, we've developed some recommendations for improvements that CARB could make with the CCI dataset that would make equity analyses more conclusive and impactful and that, more importantly, would make the CCI dataset more useful to communities across California:

- 1) Encourage third-party use of the dataset; provide a consolidated user manual including dataset methodology and a straightforward codebook. If it does not already exist, this could include clarification of how the reporting has evolved year-to-year.
- 2) Provide clarity on how projects are currently being geo-tagged and how that may vary across projects.
- 3) Make data more easily usable across data vintage (e.g, when we were looking at project level benefits, it was challenging to work with the SB 535 and AB 1550 data without ongoing correspondence with CARB's staff, and we still did not feel confident enough to publish these results).
- 4) Specify when data is actual or estimated outcomes (e.g., co-pollutant data like Diesel PM, NOx, etc.)
- 5) Specify the definition of "estimated": Is this based on modeling, based on what is planned for the project, based on best guesses on actual outcomes?

Additionally, the efficacy of this dataset would be increased with better reporting on some data points. We have heard from CARB that it has limited authority to control the data or reporting provided by other agencies. If these barriers could be overcome, here are the types of improvements that would advance this data set for use by communities:

- 1) Collect and report better recipient location data to avoid assumptions about where and to whom benefits from CCI programs are flowing. For example, there are entities that receive funding and pass it through to other organizations or individuals. Having data on the end recipients would be highly useful. One part of this is understanding the type of organizations that are end recipients: governments, businesses, Tribal entities, etc. Another aspect of this is having some way of tracking individual recipients. We understand that anonymity is required and think that CARB could use some aggregation methods to mask individual information while still reporting on end users.
- 2) Consider providing a version of the CCI dataset that allows for users to do a geography-level analysis and easily search for projects that have been funded in their region of interest at sub-county levels. Automatically populate all projects with associated census tracts. The online CCI map allows users to zoom in and find individual projects on a map and see if they are located within DACs with an additional overlay, but it does not provide an easy way for users to compile a list of those projects to allow for more detailed analysis across multiple projects.

- 3) Collect and report more detail on how funding and co-benefits are really allocated across census tracts within a project.

We believe that CARB has made important contributions by providing the CCI dataset, an online CCI Project Map, and reporting on the funding distribution across projects and the distribution of project funding across counties as seen in the annual reports. With the recommended improvements to the CCI dataset, detailed geographic analyses at more localized levels would become more accessible and make it easier for community members to assess how well their needs are being met and better advocate for the most meaningful and impactful projects to achieve improved racial equity and environmental justice outcomes.

While these improvements would require time and energy, we think they are well worth it at a philosophical and practical level. The intent of SB 535 and AB 1550 is to ensure that Disadvantaged Communities and lower-income communities are benefiting from the CCIs. Improving the dataset and making it useful from a community standpoint would allow for greater transparency and accountability.

We do acknowledge the challenges of overhauling government datasets and reporting processes. We understand that CARB has a limited scope of authority, as well as budget and capacity constraints.





# FINDINGS: PROGRAM CASE STUDIES

In addition to our quantitative analysis that sought a more comprehensive review of the suite of CCI funding and outcomes, this report also used a case study approach for a more in-depth analysis of some key CCI programs. Our report used a multi-step and mixed-methods approach to select 10 case studies that would represent significantly funded and politically notable programs from over 70 existing programs under current investments.<sup>145</sup> This required a preliminary quantitative review of the cumulative CCI programs, as well as qualitative interviews with environmental justice groups, to identify 10 case studies that could illustrate the variation in sectors, reception, scale, and implementation of the broader CCI programs. Further, we sought to include programs that had some connection or relevancy to federal initiatives and investments, like those associated with the Inflation Reduction Act and the Infrastructure Investment and Jobs Act.

This approach resulted in the selection of the following 10 programs: 1) the Dairy Digester Research and Development Program (DDRDP); 2) the Community Solar Pilot Program, 3) the High-Speed Rail (HSR) Program; 4) Clean Truck and Bus Vouchers (HVIP); 5) the Low Carbon Transit Operations Program (LCTOP); 6) the Affordable Housing and Sustainable Communities (AHSC) Program; 7) the Forest Health Program; 8) the Sustainable Agricultural Lands Conservation (SALC) Program; 9) Community Air Protection Incentives (AB 617); and 10) the Transformative Climate Communities (TCC) Program. These 10 programs represent about 61% of all CCI dollars allocated to programs as of November 2022, including High-Speed Rail. See Figure 19 for a quick view of the 10 programs and funding levels. Although this selection certainly does not cover everything, we hoped examining these theoretically informed cases would help to provide illustrative examples of strengths and areas for improvement for current and future climate investments. We note that these written case studies

represent syntheses of findings from interviews and data collected through mid-2023 and that some programs may have released new guidelines or updated processes since this time.

**Figure 19: CCI Programs Selected for Case Studies**

<b>Program</b>	<b>Dollars allocated as of November 2022</b>  (% of total allocated CCI dollars, excluding High Speed Rail)	<b>Dollars implemented as of November 2022</b>  (% of total implemented CCI dollars, excluding High Speed Rail and intermediary administrative expenses)	<b>Continuous allocation as share of GGRF appropriations for FY 22-23 <sup>146</sup></b>
<b>Transformative Climate Communities (TCC)</b>	\$241.3 M (2%)	\$204.9 M (2%)	-
<b>Community Solar Pilot</b>	\$2.2 M (~0%)	\$2.0 M (~0%)	-
<b>Affordable Housing and Sustainable Communities (AHSC)</b>	\$3,276.2 M (21%)	\$1,508.6 M (16%)	20% (combined with SALC)
<b>Forest Health</b>	\$602.7 M (4%)	\$461.2 M (5%)	-
<b>Low Carbon Transit Operations Program (LCTOP)</b>	\$943.2 M (6%)	\$776.8 M (8%)	5%
<b>Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)</b>	\$486.4 M (3%)	\$256.9 M (3%)	-
<b>Community Air Protection Incentives (AB 617)</b>	\$1,164.0 (8%)	\$433.3 M (5%)	-
<b>High-Speed Rail</b>	\$5,496.5 M	\$4,300.0 M*	25%
<b>Sustainable Agriculture Lands Conservation (SALC)</b>	\$358.7 (2%)	\$90.2 M (1%)	20% (combined with AHSC)
<b>Dairy Digester Research and Development Program (DDRDP)</b>	\$289.1M (2%) (jointly with the Alternative Manure Management Program)	\$195.3 M (2%)	-

\*The latest CCI implementation dataset released by CARB does not include data on High-Speed Rail (dollars implemented). As such, this number is derived from the “2023 Annual Report” which was released in April of 2023 ([https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/cci\\_annual\\_report\\_2023.pdf](https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/cci_annual_report_2023.pdf)).

Although we encourage readers to read through these case studies individually, we also offer the following six major takeaways from this analysis:

Our first major takeaway: We found that most program guidelines do not explicitly mention or define equity. However, many have established set-aside goals to ensure distributional equity in benefits to Disadvantaged Communities, Low-Income Communities, Tribal communities, or smaller businesses. Some programs such as AHSC and TCC stand out for leaning much deeper into equity requirements, pushing applicants to develop anti-displacement activities, workforce development activities, collaborative partnership structures, and to conduct more extensive community engagement.

Our second major takeaway: For most programs, the public is able to weigh in on program guidelines and practices. Selected programs have benefited from input from community stakeholders, pushing for more equitable guidelines and meaningful outcomes. HVIP has evolved to establish set-asides, higher voucher amounts, and restrictions to ensure that more clean fleets land in Disadvantaged Communities and under ownership of smaller businesses—in no small part through regular input by transportation equity advocates. Similarly, advocates have seemed to have actively shaped AHSC, TCC, and High Speed Rail to ensure programs are accessible and provide meaningful benefits.

Our third major takeaway: CCI programs range vastly in their ease of use and accessibility. On one end of the spectrum, LCTOP, HVIP, and the Community Solar Pilot Program shined for their ease of use. These programs generally used simple forms and processes to apply for funding. The HVIP program, for example, was designed with ease-of-use as a key goal, providing point-of-sale discounts with little extra paperwork for fleet purchasers. On the other end of the spectrum, programs like Forest Health, AHSC, and TCC involve extensive application materials, partnership development, and in many cases, have required users to hire professional support to pull together a strong application. With this said, each of these three programs have made concerted efforts to provide technical assistance, which was cited as being helpful, though not always robust or sufficient.

Our fourth major takeaway: The majority of programs produce verifiable, helpful benefits to priority populations, and some even produce unintended benefits such as improved collaboration between state agencies and environmental justice groups. In particular, the more complex large-dollar programs such as TCC, AHSC, and Forest Health—despite how onerous they are to access—have produced well-coordinated, multi-benefit outcomes, and visible community-wide impact. These three programs have also produced partnership structures that have continued to yield fruits through new project ideas or continued collaboration beyond the initial investment.

Our fifth major takeaway: Although programs are generally producing positive results, some programs might also be contributing to harm or showing very little benefits to communities. DDRDP for example, has contributed to the perpetuation or incentivized the expansion of large dairy operations which bring with it increased air pollution and risks of groundwater and soil contamination all the while contributing to biogas production which is neither fully clean nor zero-emissions. SALC, which funds the purchase of conservation easements, largely benefits landowners with commensurately little additional benefits for surrounding communities.

Our sixth major takeaway: CCI programs need more work to improve economic benefits. We found that while job creation is generally emphasized in these investments, wealth building for low-income

households and community wealth building through more democratic ownership of assets and resources is not emphasized. There is also little reporting around the financial beneficiaries of investments (households, companies, local government / community); and jobs quality data is not publicly available. Across programs, we also found efforts by administrators to deliver more funding opportunities to Indigenous communities, yet significant barriers continue to exist for these communities to access programs and receive benefits.

In the following section, we offer a more in-depth analysis for each program, as well as recommendations for stakeholders and implementing agencies.

# 1. Transformative Climate Communities

## **What is Transformative Climate Communities (TCC)?**

Administered by the Strategic Growth Council (SGC), the Transformative Climate Communities (TCC) program centers the needs of the state's most pollution-burdened communities through funding community-led plans that address the climate, health, and economic issues most present for them. Established by AB 2722, TCC was the result of long-term organizing and advocacy efforts by climate justice advocates and other stakeholders who envisioned lasting transformative investments that reduce cumulative pollution burden, greenhouse gas emissions, and address a history of under-investment.<sup>147</sup>

Before TCC came to be, there was the Green Zones Initiative led by CEJA that similarly engaged local leaders to identify community-led solutions to transform areas that are low-income and most burdened by pollution.<sup>148</sup> These existing relationships and experiences of addressing social and environmental concerns fed into the foundations of TCC. Those foundations include prioritizing funds for Disadvantaged Communities (DACs), as identified by CalEnviroScreen.<sup>149</sup> From 2018 to 2023, TCC has funded projects through four rounds of funding to over 30 California communities.<sup>150</sup> The program includes a competitive application process that is open to entities ranging from community-based organizations and city governments to Tribal Nations and philanthropies that work within or alongside historically underserved communities throughout the state. Currently, organizations have to fight to retain TCC funding, as it does not have continuous appropriations from the Greenhouse Gas Reduction Fund (GGRF).

## **What Projects Did TCC Fund?**

First, TCC awards planning grants that have ranged from just over \$90,000 to \$300,000 to identify community needs and design potential projects to address those needs.<sup>151</sup> TCC also awards implementation grants that have ranged from about \$9 million to \$35 million for capital projects submitted community collaboratives.<sup>152</sup> The projects have been funded across the state and include urban greening efforts, solar installation, affordable housing developments, public transit expansion and more.<sup>153</sup> Funded projects deliver necessary benefits to DACs and also contribute to reducing greenhouse gas emissions over time.<sup>154</sup>

To assess how TCC is furthering equity, we interviewed the Strategic Growth Council and organizations from the following sites:<sup>155</sup>

- South Los Angeles: Round 2 planning grant; Round 4 implementation grant
- Stockton: Round 1 planning grant; Round 4 implementation grant
- San Diego–Barrio Logan/Logan Heights: Round 3 planning grant; applied for Round 5 implementation grant

### How did the program fare in terms of equity?

From the beginning, TCC was designed to invest GGRF dollars in the most pressing concerns in underinvested and pollution-burdened communities. In many ways, TCC accomplishes this goal. TCC's creation and evolution—which includes expanded eligibility to Tribal Nations, an increased threshold for Disadvantaged Communities (DACs), and other key improvements—have resulted from continued advocacy by trusted power-building organizations and their membership bases who know, most clearly, what is needed to improve the climate, health, and economic burdens in environmental justice communities.

As a result of multiple components within TCC guidelines—such as the Community

Engagement Plan and Collaborative Stakeholder Structure requirements—organizations are reminded that engaging with residents and ensuring that proposed projects are identified by the community are both paramount to receiving TCC awards. One mechanism that furthers equity is access to Technical Assistance (TA) in the process of applying for TCC funds and throughout the duration of grant cycles. In addition to TA providers, applicants and grantees can work with administrators at SGC, increasing program accessibility. Ongoing evaluations of TCC-funded projects have shown just how the program supports equitable community-led plans and capacity building that address climate concerns—and can even serve as a model for nationwide climate investments.<sup>156</sup>

One barrier to promoting equity is the high level of technical expertise and capacity required to apply for planning and implementation grants. Larger entities with higher levels of capacity—such as city governments or foundations—must often be the lead applicant. This creates some tension since some smaller organizations may be closer to community needs and there are power dynamics at play with governments and philanthropy. While the availability of TA is useful, more resources—such as more frequent TA opportunities and capacity-building among grantees to administer these funds—are needed for applicants to prepare strong proposals.

#### Administering Agency:

**Strategic Growth Council**

#### CCI Funding Allocated:

**\$241.3 million (1.6% of total CCI)**

#### Dollars Implemented:

**\$207.8 million**

#### Reported Implemented Dollars Benefitting Priority Populations:

**\$192.6 million (94%)**

#### Estimated GHG emissions reductions

**150,000 MTCO<sub>2</sub>e (.15% of total CCI)**

#### Cost per GHG emissions reductions (\$/MTCO<sub>2</sub>e)

**\$1,390**

#### Years of Operation

**2018 - present**

\* as of November 30, 2022.<sup>156</sup>



**Figure 20: Summary of Equity Analysis of Transformative Climate Communities using ECIPs**

<b>Equitable Climate Investment Principles</b>	<b>Transformative Climate Communities</b>
<b>1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities</b>	TCC furthers equity by prioritizing DACs that have historically been disinvested within the program's guidelines. One of its many strategies includes centering the health and racial equity outcomes for the communities in which projects are funded.
<b>2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.</b>	One of the primary goals of TCC is to fund community-led projects that address issues highlighted by community members. This is most apparent in their requirement for a Community Engagement Plan where applicants must identify mechanisms of engagement and a plan for continued input throughout the lifespan of the grant if funded.
<b>3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.</b>	The barriers that remain are throughout the application process, e.g., the application requires highly technical knowledge and many hours of work from applicants who may not always have the capacity to meet the many requirements of the TCC application process.
<b>4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.</b>	Building or harnessing community power looks different in each area that is funded by TCC. Sometimes there are existing relationships that make this effort easier and other times, TCC requirements lead to wholly new relationships. In both instances, bonds are often strengthened as a result, which could have lasting impact for communities even beyond TCC.
<b>5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis.</b>	As part of the application process, grantees develop Community Engagement Plans that aim to respond to the needs of communities. However, many community-identified priorities and projects are often cut from proposals because they are not shovel-ready at the time of application, thus more flexibility on the "readiness" of a project could strengthen outcomes for communities.
<b>6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.</b>	TCC applications must estimate the amount of GHG reductions that will result from the projects proposed. SGC assists applicants with these estimates, and applicants are scored on this factor before being awarded the grant.

<p><b>7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities.</b></p>	<p>TCC funds projects that purchase zero-emission vehicle technologies, such as electric cars and e-bikes, that create opportunities for communities to steer away from reliance on fossil fuels.</p>
<p><b>8. Advance health equity outcomes and at minimum, do not create more harm.</b></p>	<p>The communities where TCC projects take place often have a history of inequities that could affect one's health. TCC aims to advance health equity outcomes by funding projects that have tangential health impacts such as projects that create housing, bring more green space to neighborhoods, fund zero-emission vehicles, and more.</p>
<p><b>9. Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.</b></p>	<p>The program has funded affordable housing development that has the potential to create lasting economic improvements for low-income community members. Additionally, applicants are required to present workforce development and displacement avoidance plans to bring in more economic opportunity while minimizing displacement.<sup>158</sup></p>
<p><b>10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.</b></p>	<p>In an effort to ensure community voice and input are integrated in the funding, there has been feedback directly provided to SGC to change guidelines and better allow for community input and overall access. Additionally, there are regular evaluations on select sites to assess the progress and highlight areas for improvement.<sup>159</sup></p>

## Recommendations

To SGC

- Continue and increase Technical Assistance (TA) opportunities.** While many interviewees noted the high levels of technical knowledge needed to complete TCC implementation applications, they also underscored how helpful TA has been. TA is necessary to make TCC funding more accessible to more organizations—this is especially true for GHG reduction estimates.
- Consider providing small awards to implementation applicants who were not selected as grantees.** Small awards would compensate applicants for the effort put in, and importantly, build morale among applicants during the process of applying.
- Encourage more community foundations to work with community organizations on TCC applications.** Many community foundations are already equipped with the fiscal and internal

capacity to manage large governmental grants, complex reporting requirements, and reimbursements. Additionally, many also have strong connections and trust built with community partners.

- **Provide funding between planning and implementation applications.** Organizations that have been awarded planning grants and then move to apply for an implementation grant are met with an arduous and expensive application process that includes staff time and hiring consultants. SGC is piloting a Project Development Grant in response.<sup>160</sup> Based on this research, we anticipate that this funding will make the TCC process more accessible.
- **Provide greater flexibility around leverage funds.** A challenge within the TCC application is the 50% leverage match requirement, which is difficult to meet for many applicants, especially those with lower capacity.
- **Streamline the application to reduce time required by applicants and to avoid having to repeat information multiple times.** One way to accomplish this could be asking for much of the documentation requested post-award announcements to decrease the number of documents needed during the application phase.

To the Legislature

- **Continuously appropriate funding to TCC from GGRF** so that advocates do not have to spend as much time and effort ensuring funds will be allotted to the program and, instead, spend time on new proposals or existing funded TCC projects.

## Equity Analysis

### EQUITY IN THE PROGRAM GOALS

#### Driving with equity

TCC offers a detailed vision that underscores the program's focus on a place-based approach to further equity in Disadvantaged Communities (DACs). Additionally, one of its 11 key strategies is improving health and racial equity outcomes in the TCC-funded communities.<sup>161</sup> In these ways, TCC considers historical and existing inequities and attempts to address them by funneling investment to these places. This is a unique approach to climate investments that has long been commended for the ways it empowers communities to devise plans that address the needs most present in their homes and lives.<sup>162</sup>

Some grantees noted that leading with equity has been embedded in SGC's approach versus simply stating it in a definition. TCC gets local government agencies to see that projects are not always

shovel-ready in DACs. One grantee shared that the planning grant itself results in more shovel-ready projects that are better able to utilize the levels of funding made available through implementation grants.

***“When we think about equity, it’s partially defined around accessibility: do communities have access to TCC? As TCC Staff, this question becomes a driving force of the program. Our guidelines define Disadvantaged Communities and we are constantly trying to improve and expand accessibility beyond that definition. After consultation with community organizations, TCC expanded program guidelines to include disadvantaged rural and Tribal communities as lead applicants. Even with this recent update, program staff are continuously identifying ways to improve and expand accessibility, reflected in our updates to our guidelines.” – Jerry Rivero, SGC***

## EQUITY IN THE PROGRAM PROCESSES

### Centering the agency of priority communities

Comprehensive community engagement is central to TCC. There are multiple mechanisms within the program and application process that make it so applicants consider how to gather and integrate the needs identified by residents. Within TCC’s Vision for Transformation are what it calls transformative elements that guide the projects it funds. This includes six elements, one of which is community engagement that requires applicants to create a Community Engagement Plan to ensure direct participation by community members in the development of their proposal and grant implementation.<sup>163</sup> Applications with strong Community Engagement Plans are given higher priority and are required to have both a description of the needs as described by community members and key stakeholders, as well as an established mechanism for continued engagement and feedback throughout the grant.

In practice, creating proposals that meet the needs of the community often benefits from having a trusted organization lead the way. Throughout the application and execution of the planning grant in San Diego, the Environmental Health Coalition coordinated successful town halls and used their decades of work in San Diego to create a truly community-driven implementation application.

***“I think what’s really exciting about our application is that it’s so responsive to community needs. You know, every piece of the application from which projects were selected, how the projects were budgeted, how they were prioritized, all of those things were informed by community members.” – Amenah Gulamhusein, San Diego Foundation***

This engagement also continues throughout the implementation grant. In South LA, the South Los Angeles Transit Empowerment Zone (SLATE-Z) shared that the planning grant they were awarded alongside their partners led to a strategizing phase, and the recent implementation grant is putting that plan to work. The community engagement elements include: designating specific partners who are focused on engagement and incorporating activities proven to strengthen engagement in South LA, such as street outreach teams and open streets events (i.e., CicLAvia<sup>164</sup>). These activities strengthen the community-led infrastructure within South LA. In Stockton, Little Manila Rising shared that the Community Engagement Plan process creates a space where applicants can coordinate with diverse partners and create or strengthen relationships. This requirement inspired the Rise Stockton collaborative to create a set of principles to guide their work together, including a principle on racial and social equity.<sup>165</sup>

### **Minimizing burdens and barriers to utilizing resources**

Nonetheless, implementation applications require a great deal of effort, knowledge, and time from co-applicants that often feels unrealistic for DACs to meet. Applying has also sometimes required significant funding from outside entities. In targeting the state's most marginalized communities, TCC recognizes that these areas have been subject to histories of underinvestment and exclusion from planning decisions.<sup>166</sup> From SGC's perspective, building up the ability of communities to move from planning to implementation grants is a success of the program. Grantees highlighted that Technical Assistance (TA) is a crucial part of minimizing burden and increasing access, particularly when it comes to calculating how proposed projects reduce GHG emissions. This type of support continues after the grants—both planning and implementation—are awarded. SGC site managers connect with co-applicants and grant managers to discuss how projects are going and provide assistance where needed.

One grantee shared that getting all the necessary materials and assistance to submit the implementation application has required over \$100k in direct and in-kind support. Alongside this, staff at co-applicant organizations have devoted unpaid hours and have taken on additional tasks in order to get applications where they need to be. Dedication of such resources was identified as a serious barrier that makes the TCC program less accessible for DACs and also makes it difficult for community organizations and their partners to deliver for their communities. For South LA's Round 4 implementation grant application, the collaborative prioritized hiring a strong consultant who helped with the many technical aspects of the application and relied on a form of "pro-bono hours" from partners who joined the application process.

***"Using general operating support, SLATE-Z led the application process for the South LA Round 4 implementation grant. Our incredible project partners dedicated staff time to come together with us and the consultant every week or every other week to prepare the application. I had one team member running the collaborative meetings, and multiple team***

***members supporting. As the work increased, eventually, I stepped in as the President and CEO to facilitate the various conversations."*—Zahirah Mann, SLATE-Z**

The dedicated and multi-faceted work from the collaborative highlights just how complex the TCC application is and the level of sophistication required to submit a successful proposal. When it came time to work on different pieces of the application, for example, SAJE shared that being a part of a larger collaborative helped disperse the work so that the work did not fall completely on one organization's team:

***"We did try to be very cautious about how much time we spent on [the application] and figuring out if there's any other ways to get volunteers to help us to outreach or join together. That's why I thought joining together was so important. That way it wouldn't be like a hundred of my hours, but like, you know, all the orgs volunteering their staff."*—Maria Patiño Gutierrez, SAJE**

Sometimes it seems that funding will not move forward without City or philanthropic lead partners. In rural communities, it can be more difficult to meet the Collaborative Stakeholder Structure that includes public agencies, community organizations outside of those who are applicants, community members, and more to inform the application and the grant itself.<sup>167</sup> Significant financial and administrative capacity is needed to receive, invoice, and manage this level of governmental funding. This has required some community-based organizations to partner with larger entities like city governments. As a result of this and the complexity of the grant, sometimes these dollars feel inaccessible to grassroots organizations that are often the most connected to the community.

## COMMUNITY CAPACITY, LEADERSHIP, AND POWER BUILDING

Community input is the heart of TCC, and community capacity building is its strength. Many of the organizations that are funded by either the planning or implementation grants have strong ties to the communities they serve. In San Diego, building up community capacity looked like harnessing an existing relationship between a trusted community organization, i.e., the Environmental Health Coalition, and a foundation with strong community ties and high capacity to apply for and administer TCC funding, i.e., San Diego Foundation. Such a relationship is built on many years of working together before TCC. This partnership came together to collectively build community capacity and provide the financial and administrative capacity to put together an implementation proposal for Round 5 of TCC.

The collaborative in San Diego is composed of residents, business owners, and community activists. One interviewee noted that even if they do not receive funding, relationships built during the

application process have been catalytic. For example, a community land trust spun out from their work on the planning grant<sup>168</sup> and, according to an interviewee, that entity is now in the process of forming its own nonprofit to fight gentrification. This collaborative will be a long-term increase in capacity for San Diego as it has been a space where members have learned how to work together with equal levels of influence, build relationships, and become much more equipped to go after other types of grants in the future.

***"Folks that are now in smaller nonprofits, even if this collective didn't stay together, they now have open lines of communication with someone at the City, someone at the Port, someone at [San Diego Metro Transit System], that they may never have had before. And that this [TCC] process has given them that, you know, that level of trust and relationship building that has been built through the collaborative. That just isn't gonna go away overnight, right? Those connections and relationships will continue, which will only benefit the region."—Amenah Gulamhusein, San Diego Foundation***

The Collaborative Stakeholder Structure "brings together public agencies, non-profit organizations, residents, and other local entities in a process that fosters long-term investment in the community's vision for transformation."<sup>169</sup> The Rise Stockton collaborative came together as a result of the TCC process and has become a key organizing mechanism for moving environmental justice work forward. Rise Stockton partners shared the desire to keep this collaborative going after winning the implementation grant. TCC also catalyzed Rise Stockton's Sustainable Neighborhood Plan in the planning grant phase.<sup>170</sup> Interviewees shared that it is the first of its kind as a community-led document that articulates what residents need in terms of climate investments and declares structural racism as an issue in the region. In 2019, the plan was adopted by the the City Council<sup>171</sup>—a level of power that some in the community had not previously witnessed:

***"Community was able to arrive at the City's doorstep prepared with a vision for what it wanted to see. And eventually, the City responded to community. Residents and nonprofits were flexing leverage with the City for the first time. That was unusual. So, given long-standing power dynamics with institutional players and community players, that's important. But, I think it led to what is one of the most powerful pieces of TCC, which is putting the work in the hands of community and resourcing them to do it—because they're the ones who are closest to the issues that they're looking to address."—Taylor Williams, Edge Collaborative***

TCC has aided in bringing youth into the fold for a longer-term generational impact in Stockton. Little Manila Rising creates a space for youth to understand the many projects that are related to TCC and gives them an opportunity to build and practice their skills in this work. Youth in Stockton are learning



that it is possible to do meaningful work in their own communities instead of leaving to find opportunity elsewhere—which stands to strengthen Stockton for generations to come.

Similarly, South LA has also seen the impact of having local organizations and their staff involved in TCC efforts. SLATE-Z shared that the work is also impactful because individual contributors are personally motivated by the issues in South LA. Zahirah Mann from SLATE-Z shared, "The strength of our work is in our various partners, and not just institutions, but as the individuals who work within those various institutions who are both from and of the community. This is very personal to them." We learned from our conversations that South LA applicant organizations have worked together for a long time, and as newer staff join these organizations, the TCC application process has been beneficial for new generations of staff to build relationships. For co-applicant SCOPE, TCC funding is also a part of their larger plan to reach new community members. For example, when it comes time for voter engagement, they will have new relationships from meeting community members at TCC-related forums.

## EQUITY IN THE PROGRAM OUTCOMES

### Producing desired, multi-benefit outcomes

Across the sites we investigated, there are a number of projects that address multiple issues within selected communities.<sup>172</sup> These include solar installation projects, electric vehicle and bus efforts, urban greening projects, and more. In Stockton, the Complete Streets Project has created a new experience of the downtown area with more greenery and a bike path that beautifies the area and has contributed to a sense of community ownership.<sup>173</sup> The Insight Garden Program goes beyond workforce development work and provides wraparound services for people with a record in the TCC project area in Stockton.<sup>174</sup> In San Diego:

***"The work included planning for a community park in excess right-of-way along a freeway that was owned by Caltrans. It was a vacant lot that's now actually broken ground and they're developing a park as a result of the TCC planning grant. So, it's really amazing to even be driving by on the freeway and you see all this construction happening."*—Kyle Heiskala, Environmental Health Coalition (EHC)**

The relationships between governmental staff and community-based organizations have strengthened from repeated engagement through TCC projects. This, grantees shared, has helped people break down silos and provide the opportunity to work together. Just one example we heard was through the Urban Forest Renovation project where the City of Stockton is working with contractors to plant 1,500 trees around the city.<sup>175</sup> Little Manila Rising was able to connect with this contractor and are now building workforce pathways from Little Manila's membership to their

organization's high-quality union jobs—which is all a result of building this relationship with them through TCC-funded projects.

## EQUITY THROUGH EVALUATION AND ACCOUNTABILITY

### Accountability

SGC administrators regularly integrate feedback on the program. Each round of funding has its own set of detailed guidelines that have been adjusted from year to year to make the program more robust and respond to feedback from applicants. Round 5 of TCC applications opened in early 2023 and there were a handful of improvements made to funding guidelines that include an Advance Pay Pilot program where lead applicants are now able to request and distribute advance payment, a Project Development pilot to provide bridge funding for pre-development applicants, and increased flexibility for Tribal and rural applicants.<sup>[176](#)</sup>

However, there are areas for improvement. TCC guidelines consistently receive letters of input from CBOs, sometimes from the same organizations year after year, about how the application process remains challenging and inaccessible to DACs. Tribal partners have offered to have an honest conversation about their participation in TCC. This led SGC to take a step back and investigate better ways to promote TCC opportunities among Tribal Nations. SGC has added some Tribal specific considerations to the TCC application guidelines and a Tribal specific application resource guide.<sup>[177](#)</sup>

## 2. Community Solar Pilot Program

### What is the Community Solar Pilot Program?

Community solar is a solar energy production system that shares the output of a large, off-site solar array with the surrounding community—instead of just a single building like rooftop solar systems.<sup>178</sup> Community solar serves to provide access to clean energy for lower-income households and renters, who are unable to install rooftop solar.

Various state programs have attempted in the recent past to expand low-income access to community solar energy systems—with little success thus far, according to the advocates we interviewed. However, there is positive momentum on expanding community solar access in the near future. The Inflation Reduction Act of 2022 created a \$7 billion competitive grant fund for states, local governments, and Tribal Nations to deploy rooftop and community solar in communities with less access to existing solar systems; and expanded tax credits for state community solar programs.<sup>179</sup> AB 2316 (2022) tentatively establishes a community renewable energy program by 2024, which will take advantage of IRA tax credits by requiring that 51% or more of customers are low-income and that construction workers are paid prevailing wages.<sup>180</sup> This dovetails with California’s goal of full decarbonization of the energy grid by 2045.<sup>181</sup>

Amidst this landscape of opportunity to expand community solar access in California, it is helpful to look at an example of how such programs can be implemented equitably for low-income and Indigenous communities.

The Community Solar Pilot Program was designed within the California Department of Community Services and Development (CSD)’s Low-Income Weatherization Program to expand access to renewable solar energy for low-income households—particularly those that could not participate in existing low-income solar programs, either due to lack of homeownership or having inadequate roofing to install solar.<sup>182</sup> Overall, the program aimed to reduce household energy costs, reduce greenhouse gas emissions, and provide economic and health co-benefits.<sup>183</sup>

### What Projects Did the Community Solar Pilot Program Fund?

In 2018, CSD awarded \$2.05 million to a project administered by GRID Alternatives Inland Empire in partnership with the Santa Rosa Band of Cahuilla Indians and the Anza Electric Cooperative, based largely on the strength of the pre-existing relationships between the parties. The project built a 994-kilowatt community solar system on five acres of leased Santa Rosa Tribal lands, and is the first publicly-funded community solar project on Tribal lands.<sup>184</sup> Since coming online in 2021, the system has provided energy access and financial benefits to 38 Santa Rosa Tribal member households and 162 low-income non-Tribal member households in the region.<sup>185</sup> The project is expected to produce more than 42 million kilowatt-hours of energy over the next 20 years of operation, saving local communities an estimated \$5.4 million in energy costs.<sup>186</sup>

## How did the program fare in terms of equity?

Overall, this pilot program serves as a strong example of embedding equity considerations into both processes and outcomes for project beneficiaries of climate investments. The program provided thoughtfully coordinated, multi-benefit outcomes for the Santa Rosa Band of Cahuilla Indians and surrounding non-Indigenous communities that were desired by these beneficiaries. Receiving communities benefited from the Community Solar program through increased access to reliable solar energy, direct energy cost savings, increased Santa Rosa Tribal energy independence through a co-managed source of solar power, and improved economic and job training opportunities. All of this was accomplished without imposing any burdens on local communities—thanks to a highly collaborative process throughout project implementation between CSD, local recipient organizations and governments, and community members. Despite the success of the Community Solar pilot in this case, no program is perfect. In order to further increase equity and access to community solar in future state-funded solar programs, interviewed stakeholders recommended improving agency communications processes with Indigenous communities and building out administrative structures to ensure long-term investments in local priorities.

### **Community Solar Pilot Program:**

#### **Administering Agency:**

**California Department of Community Services and Development (CSD)**

#### **CCI Funding Allocated:**

**\$2.2 million (0.014% of total CCI)\***

#### **Dollars Implemented:**

**\$2.05 million\***

#### **Reported Implemented Dollars Benefitting Priority Populations:**

**\$2.05 million (100%)\***

#### **Estimated GHG emissions reductions**

**10,000 MTCO<sub>2</sub>e (0.01% of total CCI)\***

#### **Cost per GHG emissions reductions (\$/MTCO<sub>2</sub>e)**

**\$204\***

#### **Years of Operation**

**2018-2024**

\* as of November 30, 2022<sup>187</sup>

**Figure 21: Summary of Equity Analysis of Community Solar Pilot Program using ECIPs**

Equitable Climate Investment Principles	Community Solar
<b>1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities.</b>	<p>While CSD does not specifically define equity or mention race consciousness in their program documentation, the project was intended to and has solely benefited low-income and Indigenous/Native communities.</p>
<b>2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.</b>	<p>The Community Solar Pilot Program has worked to create processes to center the agency of Tribal Nations and Indigenous communities and low-income communities where the pilot project occurred. These communities were allowed to lead nearly every aspect of the project, from design to final implementation.</p>
<b>3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.</b>	<p>The Community Solar Pilot Program has reduced burdens and barriers to accessing reliable, renewable energy resources in low-income and Tribal communities by enabling communities to build these resources in their region. CSD exercised flexibility to reduce burdens during the construction process.</p>
<b>4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.</b>	<p>The program strengthened already-existing community collaboration efforts, and created outcomes that were aligned with long-term goals of the Santa Rosa Band of Cahuilla Indians towards increased sovereignty and sustainability.</p>
<b>5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis</b>	<p>The Community Solar Pilot Program has produced the desired benefits of energy cost savings and increased economic development potential for local communities.</p>
<b>6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.</b>	<p>While reducing local pollution burden is not mentioned as a specific goal, the program has encouraged some residents to move away from using propane gas tanks, improving indoor air quality.</p>

<b>7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities.</b>	By its nature, the Community Solar Pilot Program is investing in strategies that transition communities away from fossil fuel usage and encourages the use of renewable solar energy. Program investments do not contribute to continued fossil fuel reliance.
<b>8. Advance health equity outcomes and at minimum, do not create more harm.</b>	Some residents are electrifying their homes after gaining access to solar. By moving away from using propane gas tanks in their homes, these residents are experiencing improved indoor air quality.
<b>9. Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.</b>	The Community Solar Pilot Program has provided reduced energy costs, community ownership of energy production, and job training opportunities for local communities.
<b>10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.</b>	Equity was not mentioned as part of the CSD reporting requirements. There were reporting metrics on understanding low-income and Indigenous community enrollment in the program.

## Recommendations

- To the Legislature
  - Establish a permanent Community Solar program through CCI or other statewide funding avenues, based on the success of the pilot program.
  - Dedicate more resources to making solar energy available to low-income households and renters, including by expanding the capacity of community solar, multifamily solar programs, and local energy cooperatives (co-ops); and by reducing barriers to scalability in rural areas.
  - Create avenues for direct community ownership of publicly-funded solar assets through expanding investment tax credit eligibility.
- To CARB

- To advance energy sovereignty and economic development for Tribal Nations and Indigenous communities, establish more consistent lines of communications with these communities through CCI's dedicated liaison for Tribal Affairs, who can share existing and future climate investment opportunities through communications channels preferred by different Indigenous groups and follow up as necessary.
- To CARB and CSD
  - For future community solar investments, continue to utilize a milestone paystone structure and offer flexibility with enrollment timing, and ensure that barriers to affordability for low-income, rural, and Indigenous communities are removed.
  - For future community solar investments, build co-equal working relationships with communities, and center their stated long-term goals. Agencies should also ensure that there are administrative structures in place to support long-term cooperation that will outlive staff turnover.
  - Coordinate and align between existing and future public solar programs to increase accessibility and streamline possibilities for stacked funding from multiple sources.
  - Factor in the realities of government-to-government collaboration with Tribal Nations in climate investment projects by building in flexibility to deadlines and processes.

## Equity Analysis

### EQUITY IN THE PROGRAM GOALS

**Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities.**

While CSD does not specifically define a working definition of equity or mention the need for race-conscious solutions in any program documentation, the Community Solar Pilot Program was programmatically intended to and has solely benefited low-income and Indigenous communities.<sup>188</sup> In early conversations with GRID Alternatives about developing a community solar pilot program, CSD also discussed equity in terms of the need for such a program to specifically reach Disadvantaged Communities. Program guidelines also required projects to show how they would provide benefits to low-income households that did not already have access to solar.<sup>189</sup>



## EQUITY IN THE PROGRAM PROCESSES

### **Center the agency and stated needs of EJ communities, Tribal Nations, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.**

The Community Solar program worked to create processes to center the agency of communities to create and implement their pilot project in Riverside County. This project has worked to address community needs and create benefits that are desired by community stakeholders. GRID Alternatives was a key partner in developing the Community Solar program with an equity focus. Even before the inception of the CSD pilot program, representatives from GRID Alternatives were engaged in conversations with CSD about the need for expanded community solar. Applicants were ultimately required to include a community engagement plan as part of their project submissions, to be achieved through community decision-making, partnership, or outreach.<sup>190</sup>

Throughout the project implementation process, the strength of the pre-existing tripartite relationship between GRID Alternatives, the Anza Electric Cooperative, and the Santa Rosa Band of Cahuilla Indians was critical to ensuring that community needs and desires were met. The Tribal Nation agreed to lease some of their land to Anza for a 25-year period and provided administrative support; Anza donated their electric line and is the owner/operator of the array itself; and GRID led construction and enrollment, and utilized their relationships with CSD to develop the project with equity in mind. CSD has largely allowed these local-level organizations to exercise their agency in making major decisions during the design and implementation phases of the pilot project—the local partnership chose the project site, conducted construction, enrolled customers, and are the owners and operators of the solar array. CSD served as the funding agency, and managed the reporting required from the local organizations.

### **Minimize burdens and barriers for priority groups in accessing and utilizing resources.**

None of the entities we interviewed identified any harms or burdens created by the Community Solar project in utilizing the funds from CSD, or in accessing the resulting solar energy after the project. Stakeholders from the Santa Rosa Band of Cahuilla Indians noted that as the energy-receiving community, they found the process to be very easy with few barriers—largely due to GRID's initial legwork in the process and CSD's flexible collaboration. For GRID Alternatives, a milestone payment structure was identified as being helpful for minimizing cost barriers and ensuring a predictable and consistent timeline for reimbursement by CSD.

## **Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.**

Interview participants reported that participating in the program strengthened existing relationships between local stakeholders. Members of the Santa Rosa Band of Cahuilla Indians also noted that the project outcome was aligned with the Tribal Nation’s long-term goals towards Tribal sovereignty and sustainability.

Members of the Santa Rosa Band noted that the solar project and the energy security it created helped open up possibilities for more facilities to be constructed on Tribal lands, and has helped generate new ideas for possible future projects (including community centers and additional battery storage projects). As Santa Rosa Tribal Administrator Vanessa Minott stated, “This is something that we can sit there and have for the future, and just from that one project that opened up a lot of opportunities and opened up our minds towards Tribal energy sovereignty.” Vivian Hamilton, as enrolled Santa Rosa Tribal member, linked this to future generations: “When you talk about sovereignty, that’s what you’re talking about—it’s making sure the next generation has that to depend upon.”

The project also strengthened the existing relationships between GRID Alternatives, Anza Electric Cooperative, and the Santa Rosa Band of Cahuilla Indians. As GRID Alternatives Community Development and Tribal Program Manager Lisa Castilone stated, “The relations with the Native reservation and the community really strengthened because the reservation willingly allowed the power to go off-rez.” Already, participants report talks between the three organizations about future collaborations to further build out infrastructure in the region.

## **EQUITY IN THE PROGRAM OUTCOMES**

### **Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities.**

The implementation of the pilot project in Riverside County created a host of benefits for communities, without imposing any identifiable burdens or harms. In addition to the relationship and capacity building discussed above, another primary benefit of the program was increased access to reliable renewable energy, as well as energy cost reductions. The area where the pilot project was implemented is only served by a single radial line connection to a larger power grid, meaning that the energy access of the entire region is dependent on this single connection. Through the program, community members were able to create a new source of reliable solar energy that would boost energy resiliency and independence for the region.

The new energy production from the solar array has also created cost savings for residents. The Anza Electric Cooperative has been able to credit the energy bills of 38 households on the reservation;

these households only had to pay small fixed costs and are now provided near-free electricity. Additional cost savings from the energy production have also been shared with low-income households outside of the Santa Rosa Band of Cahuilla Indians' Tribal lands, benefiting a further 162 households with a 25% reduction in their energy bills. Beyond cost savings, members of the Santa Rosa Band of Cahuilla Indians also gained training in solar project development by actively participating in the construction process over several weeks.

### **Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.**

Interview participants did not report any noticeable localized pollution burden improvement as a result of the Community Solar project. However, interviewees shared that some residents are electrifying their homes after gaining access to the community solar power. By moving away from using propane gas tanks in their homes, these residents are experiencing improved indoor air quality—an unanticipated but positive secondary benefit from the program.

### **Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.**

The Community Solar program did help advance economic equity for Indigenous and low-income communities in Riverside County. Local energy prices are expected to remain stable for the 20-year lifespan of the array, as there are few costs associated with maintaining the system, and the Anza Electric Cooperative has been able to guarantee fixed solar prices regardless of individual energy usage.

The solar assets themselves are also owned by the local community—meaning that there is community ownership of local energy production. Under a land-lease agreement with the Santa Rosa Band of Cahuilla Indians, the Anza Electric Company owns and operates the solar arrays and transmission lines—allowing economic costs and benefits to remain within the region. Although the Tribal Nation does not own the arrays, the value of the land itself has also been enhanced through the presence of solar assets, which was viewed by Santa Rosa interview participants as another economic benefit accruing to them.

The project also provided job training in solar array development for some Tribal members who actively participated in the construction process. While this did not create direct jobs, a participant noted that it was a valuable experience and that the training was useful for gaining new skills that could be leveraged for future job opportunities.

## EQUITY IN MEASUREMENT, EVALUATION, AND ACCOUNTABILITY

**Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.**

While the project was required to submit regular evaluations on a variety of metrics, equity was not specifically mentioned as part of these requirements. Reporting requirements focused mostly on project milestone progress in unlocking the next phase of funding and on energy production levels, although there were also some more equity-adjacent reporting metrics on low-income and Santa Rosa Tribal member energy enrollment numbers and job training opportunities.

# 3. Affordable Housing Sustainable Communities

## What is the Affordable Housing and Sustainable Communities Program?

The Affordable Housing and Sustainable Communities (AHSC) Program funds the development of affordable housing units as well as transportation investments. By pairing these, the program aims to reduce passenger vehicle miles and greenhouse gas emissions in the process. It also seeks to improve the connectivity of neighborhoods and produce holistic quality-of-life benefits for community members. AHSC is one of the few CCI programs that receives continuous appropriations from the GGRF—20% annually, which also includes funding for the Sustainable Agricultural Lands Conservation (SALC) program.<sup>191</sup>

## What Projects Did AHSC Fund?

Since 2014, the program has funded 164 developments which have created 15,324 new affordable homes serving 210,705 households.<sup>192</sup> It has also funded transportation infrastructure such as sidewalks, bike lanes, bus shelters, shade trees, and other amenities, as well as clean vehicles and transit passes for community members.

## How did the program fare in terms of equity?

AHSC program as a whole has produced many tangible, multi-benefit outcomes for recipient communities. A large majority, 83% of the program's funding is estimated to be benefiting Priority Populations, by directly providing affordable housing to a low-income household and/or creating housing in DACs or Low-Income Communities. While the application is onerous, the large-scale, multi-faceted projects have produced big pay-offs. In addition to new housing units, the program has been able to provide community-wide benefits.

### Administering Agency

California Strategic Growth Council

### CCI Funding Allocated

\$3,276.2 million (21.13% of total CCI)

### Dollars Implemented

\$1,512.4 million

### Reported Percentage of Implemented Dollars Benefitting Priority Populations

83%

### Estimated GHG emissions reductions

2,815,655 MTCO2e (2.9% of total CCI)

### Cost per GHG emissions reductions (\$/MTCO2e)

\$537

### Years of Operation

2014 - present

\* as of November 30, 2022 <sup>193</sup>

AHSC includes strong equity requirements built into application guidelines—for instance, carve-out goals to ensure projects are delivered across urban, semi-urban, and rural places, as well as Tribal communities; and additional points for activities like anti-displacement and local workforce development efforts. These application cues have pushed developers to increase community engagement and coordination

and improve jobs outcomes. The program’s emphasis on collaboration and partnership development has also produced lasting positive effects such as smoother development processes and new project ideas generated among partners.

Because of the program’s primary objective of GHG emissions reductions, several interviewed program users and EJ advocates noted the sentiment that parts of the state (in particular, semi-urban areas) are “left out” of being able to benefit from the program, particularly in light of the program’s competitiveness. Some of these interviewees also pushed back against the program’s emphasis on vehicles miles traveled (VMT) reduction as one of the primary mechanisms through which GHG reduction and project competitiveness is determined.

Staff from the one tribe that has received funds noted opportunities for the program to improve even further in future years, including through soliciting direct input on Tribal communities’ needs and desires when it comes to sustainable development projects, and improving administrative challenges that place unique burdens on tribes.

**Figure 22: Summary of Equity Analysis of Affordable Housing Sustainable Communities using ECIPs**

Equitable Climate Investment Principles	AHSC
<b>1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities.</b>	AHSC has some of the most extensive guidelines around anti-displacement, local workforce development, and housing affordability among all CCI programs.
<b>2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.</b>	The program requires community engagement to ensure projects are in alignment with community desires. While the program has funded one project to a Tribal group, iterative improvements will help ensure the program meets Tribal groups’ needs and desires.
<b>3. Minimize burdens and barriers for priority groups in accessing and</b>	While the program is challenging to use, robust technical assistance has been very helpful. Additional

utilizing resources.	reflection and support for Tribal groups are needed to minimize burdens and barriers for future applicants.
<b>4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.</b>	The program incentivizes funding for local community groups as part of projects. Requirements around collaboration between developers, transit agencies, public works agencies, and/or other groups have been fruitful in notable cases, making development processes smoother, as well as spurring new project ideas.
<b>5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis.</b>	The program produces many thoughtfully coordinated, multi-benefit outcomes. See additional details below.
<b>6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.</b>	The program reduces pollution burdens by reducing VMT.
<b>7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities.</b>	The program does not contribute to fossil fuel infrastructure; buildings do not use natural gas.
<b>8. Advance health equity outcomes and at minimum, do not create more harm.</b>	Program creates health benefits by producing safe, healthy housing units; facilitating more active transportation; trees; community gardens, spaces, and programming; and by reducing air pollution burdens.
<b>9. Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.</b>	Program supports affordable home ownership opportunities and incentivizes workforce development and local hiring.
<b>10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on</b>	Program conducts standard CCI-required analyses. There is no publicly available information on racial demographics of individuals and households benefiting



**understanding benefits and impacts on communities.**

from AHSC through new housing units. Interviewed developers noted that SGC has been responsive to feedback around refining guidelines to be more equitable over the years.

## **Recommendations**

- **To SGC**

- Conduct ongoing listening sessions focused on Tribal groups' needs and preferred projects when it comes to AHSC.
- Facilitate opportunities for dialogue between applicants and CARB around the program's GHG emissions calculations to 1) foster greater transparency in how the model's calculations are done; and 2) address sentiment that there may be more creative ways to address GHG reduction outside of the primary VMT reductions approach that CARB and SGC could consider integrating into the model.
- Identify possible ways to create an advance pay option for smaller developers and tribes.
- Continue to fund robust technical assistance, particularly for smaller developers.
- Proactively foster dialogue with the Bureau of Indian Affairs (BIA), as many California tribes reside on trust lands associated with the BIA and future projects utilizing AHSC dollars may require close coordination with this federal agency.
- Leverage lessons learned from the first AHSC Tribal project (several noted below) to improve processes for future projects:
  - Requirements to show data on project site's climate impact studies and market studies that are not regularly conducted on Tribal land may keep other tribes out—provide additional resources (or consider waiving requirement).
  - Accessing a construction loan, then receiving permanent financing through the program may be a hurdle for many tribes who may have difficulty accessing traditional bank loans. Identify possible ways to address this barrier including partnerships with Native Community Development Financial Institutions (CDFIs).
  - In general, the cost of applying for AHSC may be prohibitive for many tribes; additional resources for producing applications (e.g., pre-development grants, unrestricted TA funds for additional staff support) could be helpful.

- The California Tax Credit Allocation Committee (CTCAC) delivers funding to tribes in a more streamlined, easy way. AHSC could look to this source as an example for making administrative processes easier on tribes.

## Equity Analysis

### EQUITY IN THE PROGRAM GOALS

#### Driving with equity

The AHSC program has strong equity-focused requirements built into application guidelines. While guidelines do not explicitly define what equity means for the program, it follows recommended actions from SGC’s Racial Equity Action Plan (REAP)—in particular, but including “minimum requirements for racial equity priority topics (e.g., anti-displacement, community engagement and outreach, and economic inclusion)...” in the grant application and guidelines.<sup>194</sup>

Such requirements include:

- Funding allocation set-asides and targets to ensure that benefits reach selected target communities and/or households. Per the most recently available Round 7 program guidelines, AHSC aims to fund at least one project from an eligible Tribal Entity.<sup>195</sup> At least 50% of program dollars must benefit Disadvantaged Communities; at least 5% must benefit Low-income Communities; and at least 5% must benefit Low-Income Households or communities outside of but within a half-mile of Disadvantaged Communities.<sup>196</sup>
- Increased application points given to projects that include: <sup>197</sup>
  - Anti-displacement activities
  - Local workforce development and hiring practices
  - Meaningful engagement of local residents and community-based organizations
  - An articulation of how the project advances equity

The AHSC program also aims to create distributional equity between urban and rural areas of the State by creating minimum funding goals for different Project Areas.<sup>198</sup> This ensures that project dollars are not exclusively used in urban regions and that other parts of the state—particularly rural and semi-urban places—can also access funding.

## EQUITY IN THE PROGRAM PROCESSES

### Centering the agency of priority communities

With AHSC, there may be a mismatch between what is primarily desired by communities—the tangible outcomes of housing, infrastructure, and transit investments—and the program’s statutory goals around GHG emissions. Most interviewees brought up this tension. The AHSC program requires that projects demonstrate GHG reductions through Vehicle Miles Traveled (VMT) reductions, by facilitating “fewer or shorter vehicle trips or through mode shift to transit use, bicycling, or walking...” <sup>199</sup> However, if a city or region does not have significant transit to begin with, inducing VMT reduction here can be difficult as there is no transit to invest in through which mode shift is induced. Several interviewees noted that many parts of the State have a deep need for more affordable housing but cannot competitively access AHSC dollars. In particular, semi-urban areas were noted as places “left out” of being able to benefit from the program compared to urban and rural places, despite the carve-out goals established by the program.

A developer based in the Central Valley also noted that there may be other ways to produce GHG reductions through AHSC that are not based on VMT reductions—for instance producing energy load shift in buildings. However, because the AHSC GHG emissions methodology and calculator tool narrowly focus on VMT, they felt that this stifled the opportunity for other creative GHG reduction strategies.

### Minimizing burdens and barriers to utilizing resources

AHSC is a highly challenging program to apply to, as it has extensive requirements around GHG reductions calculations, partnership development, and many other application sub-requirements. With that said, most interviewees noted that the payoffs have been worth the effort, as the program allows developers to offer more holistic public improvements in addition to new housing units (also see ‘Equity in Program Outcomes’ section below).

Multiple funding recipients we spoke with noted that the AHSC technical assistance offered through Enterprise Community Partners has been highly helpful. One interviewee noted that the TA provider’s support in connecting developers with potential application partners (e.g., transit agencies, public works departments, community-based organizations) was especially helpful.

Two smaller developers brought up challenges with the program’s lack of advanced pay, which requires organizations to carry upwards of millions of dollars in debt before being reimbursed by the State.

### Centering Tribal communities and needs

The AHSC program has funded one project to a Tribal entity—the Yurok Indian Housing Authority (YIHA) for the Arcata 30th Street Commons Project in the City of Arcata. The staff we spoke with from

YIHA shared appreciation for the program overall, noting that the Tribal set-aside goal in the most recent program guideline—to fund at least one Tribal entity—is a positive development. YIHA staff noted that the 30th Arcata Street project produced tangible benefits by creating 36 new affordable housing units for enrolled Tribal members in a walkable neighborhood close to job opportunities and a Native American health clinic. They also noted that the administrative aspects of using AHSC have been “workable” with SGC for the most part.

With that said, some significant challenges were noted as well:

- For the AHSC application, requirements to show data on climate impact studies and market studies were a challenge for the Tribal housing authority. While these documents may be readily available for municipalities (for general plans or other long-range planning purposes), these are not always available documents for tribes.
- The cost of applying for AHSC in staff time and resources was significant and was cited as being a likely barrier for most tribes.
- YIHA staff members were not familiar with the AHSC funding disbursement process in which developers must access a loan to cover project costs first, then receive permanent financing through the program, as administered by HCD. This led to unexpected work afterwards, to access a loan after the award was won.
- There were other hurdles that YIHA encountered as they were the first Tribal entity to utilize the program—for instance, delayed communications with HCD when questions arose about funding disbursement and grant administration; repetitive inspections between staff from the California Tax Credit Allocation Committee (TCAC) which also partially financed the project, and the AHSC program, when coordination would have reduced burdens on residents.

A more systemic issue with the program is that, as noted previously, when it comes to funding allocation, the program’s application scoring mechanism favors projects in places with high GHG emissions that can be lowered through reduced VMT. While many Tribal groups need housing and may have good sustainable housing project ideas, many tribes are “low-impact” already in terms of GHG and may not be able to make deep reductions. Nicole Sager, Executive Director of the Yurok Indian Housing Authority, expressed a desire for SGC to facilitate more dialogue with tribes regarding projects that tribes are implementing or have ideas for, that SGC could consider making fundable through future guidelines. “There’s another way of being and knowing,” Sager noted. “It would be great if the Strategic Growth Council sat down and said ‘We’d like to hear about what tribes do in development to mitigate climate change already’...” In reference to selected ongoing low-carbon development projects on the Yurok Tribe, she added, “It’s unfortunate that we can’t put these projects into AHSC so that we could all get recognition for being a part of the solution.”

## EQUITY IN THE PROGRAM OUTCOMES

### Producing desired, multi-benefit outcomes

Overall, the AHSC program as a whole has produced many tangible, multi-benefit outcomes for recipient communities. 83% of the program's funding is estimated to be benefiting Priority Populations, by directly providing affordable housing to a low-income household and/or creating housing in DACs or Low-Income Communities.<sup>200</sup> Affordable housing units as well as other AHSC investments such as street trees, sidewalks repairs, transit infrastructure (bike lanes, bike racks, transit stops), electric vans for vanpool, and transit passes to residents all provide tangible and immediate benefits to not only housing residents but to surrounding neighbors.

One developer based in Southern California noted that being able to create investments at the scale of the project area also helps make development processes smoother, as greater community buy-in is possible and any NIMBY-ism that sometimes surfaces can be addressed. The interviewee shared that this can also help shift negative perceptions of affordable housing that are harbored by some communities.

AHSC has also provided benefits that are less quantifiable or not consistently tracked. One example is that it spurred innovation in building construction in Round 6 by incentivizing all-electric building projects before this became a state-wide building standard.<sup>201</sup> One developer who utilized AHSC funding for an all-electric building noted that this and other AHSC projects were able to serve as proofs-of-concept to showcase both the technical and cost feasibility of making affordable housing buildings all-electric. Another benefit noted by program users included increased collaboration and the spurring of new project ideas between housing developers and transit agencies or public works departments, as AHSC requires these partners to build relationships and collaborate. In some cases, activities funded by AHSC have also been scaled regionally. One developer based in the Central Valley noted that free transit passes initially funded by AHSC were so well received by community members, that they requested the Tulare County Association of Governments for a countywide transportation pass program for all affordable housing communities.

### Facilitating wealth building and community wealth building opportunities

AHSC funds affordable homeownership projects that provide a unique opportunity for low-income households to build wealth. As of June 2023, one homeownership project has been funded. Staff from the affiliated developer, Heritage Housing Partners, noted that while there were hurdles to utilizing AHSC due to the vast differences in financing structures and processes for rental versus ownership projects, HCD and SGC have made significant updates to accommodate future home ownership projects. HCD has now set up the administrative infrastructure to more easily process home ownership projects, and according to SGC staff, the program will continue to welcome these applications.

When it comes to jobs outcomes from AHSC, we received anecdotal information from developers that the workforce and hiring practices<sup>202</sup> incentivized by the program have pushed them towards activities they would not have implemented otherwise for standard construction. These include, for instance, creating MOUs with local labor unions and committing to targeted hiring goals and/or creating apprenticeship programs; hiring local and Section 3 workers;<sup>203</sup> and hiring labor compliance specialists to monitor progress towards jobs goals. We were not able to access a public dataset that shows the full targeted hiring and workforce development outcomes of AHSC. However, based on such anecdotal feedback from developers, we can see that encouraging these practices through guidelines has yielded intended, induced workforce outcomes. This may be particularly true for a program like AHSC which is a competitive, oversubscribed program for which applicants will be willing to respond to cues established in guidelines.

## EQUITY THROUGH EVALUATION AND ACCOUNTABILITY

### Equity Evaluation and Accountability

AHSC program produces standard reporting required for CCI programs, which largely includes data tracking around program outcomes.<sup>204</sup> There is no publicly available information on racial demographics of individuals and households benefiting from AHSC through new housing units.

When it comes to the program's responsiveness to feedback from potential applicants, interviewed developers noted that SGC has been responsive to feedback around refining guidelines to be more equitable over the years, for instance by creating set-asides goals for rural and semi-urban communities.

# 4. Forest Health Program

## What is the Forest Health Program?

California's forests are at increasing risk of going up in flames. Over the past century, the natural adaptability of our forests to fire has been reduced by the forced replacement of traditional fire management practices with colonial fire suppression policies and the commercialization of timber.<sup>205</sup> At the same time, industrial practices have pumped more GHGs into our atmosphere, causing anthropogenic climate change and intensifying heat and drought. These factors have created conditions for increased catastrophic wildfires in California.

Investments in forest management and wildfire prevention in California come from various sources and agencies. The United States Forest Service (USFS), National Park Service, and Bureau of Land Management have jurisdiction over forests on federal lands in the state, and offer grants to local governments and organizations. At the state level, the legislature has allocated billions over the past few budgetary years to forest health and wildfire prevention activities.<sup>206</sup> These investments include supporting CAL FIRE forest management activities, and a shared stewardship agreement between the USFS and various state agencies to increase California's forest cover across numerous programs.<sup>207</sup> Overall, forest management often entails organizations piecing together a patchwork of grants from various sources.

It is within this broader context of funding that the Forest Health Program exists. The Forest Health Program was established in 2015 to improve the resilience of California's forests against catastrophic wildfire. Initially a singular program, Forest Health has since evolved into a suite of competitive grant opportunities based on project type funded by both GGRF and General Fund dollars. The program's main objectives<sup>208</sup> are to:

- Prevent catastrophic wildfires and the accompanying physical, cultural, economic, and climactic harm they cause for affected communities.
- Maintain and restore natural carbon sinks in forest trees and soils for California to mitigate greenhouse gas emissions.
- Maintain and restore forest watersheds where much of California's water resources originate.
- Support the forest-based economy upon which rural and Indigenous communities often depend.

## What Projects Does the Forest Health Program Fund?

As of November 2022, the Forest Health Program has allocated \$602.7 million in CCI funding to landscape management projects to protect and restore California's forest ecosystems (in addition to



projects funded solely by the state's General Fund, which are not included in the above number).<sup>209</sup> The Forest Health Program funds projects that under

take forest fuels reduction, reforestation, prescribed fire, pest management, and biomass utilization activities. Each of these treatments contribute to improving overall forest health by conducting land treatments to reduce vulnerability to drought, pests, and wildfires while providing economic, cultural, and safety benefits to forest communities.<sup>210</sup> There are also specific set-aside funds for California Tribal Nations and organizations—although the set-asides are not funded by GGRF dollars.<sup>211</sup> To date, most Forest Health funding has been allocated to forest fuels reduction and reforestation projects.<sup>21</sup> Local, state, and federal agencies; Tribal Nations; special districts like fire prevention or water districts; nonprofits like local fire safe councils; private landowners; and universities are all eligible to apply for and receive Forest Health funding.<sup>213</sup> To date, most funding has been allocated to fire prevention districts and fire safe councils.<sup>214</sup> Both of these types of entities work on the local level to prevent and combat wildfires within a designated area—usually at the county level.

**Administering Agency:**

**California Department of Forestry and Fire Protection (CAL FIRE)**

**CCI Funding Allocated:**

**\$602.7 million (3.88% of total CCI)\***

**Dollars Implemented:**

**\$461.2 million\***

**Reported Implemented Dollars Benefitting Priority Populations:**

**\$183.9 million (40%)\***

**Estimated GHG emissions reductions**

**18,990,000 MTCO<sub>2</sub>e (19.55% of total CCI)\***

**Cost per GHG emissions reductions (\$/MTCO<sub>2</sub>e)**

**\$24\***

**Years of Operation**

**2015 - present**

\* as of November 30, 2022<sup>215 216</sup>

## How did the program fare in terms of equity?

Overall, the Forest Health program performs relatively well in our equity analysis. In addition to advancing its ecological goals of catastrophic wildfire prevention and imp

roving forest health, the program has shown the beneficial impact of consistent collaboration between and within CAL FIRE and funding recipients. Reflecting the reality that fire does not see borders, the program actively encourages collaboration between organizations to transcend patchwork land jurisdictions to treat large project areas to improve forest health and share the attendant benefits across communities. Though not the primary goal of the program, Forest Health Funding has been utilized in ways that allow Tribal Nations and Indigenous communities to further their land management, utilize traditional ecological knowledge, and practice cultural burning. However, more work can be done—not just by CAL FIRE but other State agencies as well—to support these communities in accessing funding for desired projects. In particular, broader interagency conversations on coordinated and streamlined outreach, funding opportunities specifically for Tribal

Nations and Indigenous communities, and expanded rights over cultural and prescribed burning would be helpful.

CAL FIRE staff did express a broad willingness to be flexible, respond to stakeholder feedback, and actively pursue avenues of equity improvement in our interviews. Future improvements to the Forest Health program that CAL FIRE should pursue include greater technical assistance to help grantees that need support with reporting requirements, reducing any negative impacts of staff turnover (particularly within grant management teams) on funding recipients, and identifying ways to increase investment in biomass utilization activities to ensure that they are economically viable for rural communities.

**Figure 23: Summary of Equity Analysis of Forest Health Program using ECIPs**

Equitable Climate Investment Principles	PROGRAM NAME
<b>1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities.</b>	There is no mention, definition, or goal of increasing the equity of climate investments made by the Forest Health program within programmatic documents or guidelines. However, some actions and focuses expressed by CAL FIRE speak to an internal drive for increasing programmatic equity for low-income and Indigenous communities—including a goal to direct 40% of funding to low-income communities.
<b>2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.</b>	While CAL FIRE has been very proactive in soliciting and incorporating community feedback on their programmatic processes and direction, some Tribal Nations have expressed significant concerns around Tribal sovereignty and land management rights involving the use of fire.
<b>3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.</b>	While CAL FIRE has been flexible in how organizations utilize high amounts of grant funding, they have also imposed high reporting burdens on recipients.
<b>4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.</b>	High amounts of grant funding and a highly collaborative program design have fostered long-term investments in community capacity and increased opportunities for interorganizational relationship-building.

<b>5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis</b>	The Forest Health Program has generally been effective in producing desired outcomes for receiving communities by increasing fire resiliency, improving the health of forest ecosystems, and beginning to restore Tribal Nations' rights to fire.
<b>6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.</b>	The Forest Health program's goal of reducing the incidence of catastrophic wildfires has been successful in retaining forest-based carbon sinks and averting a massive amount of air pollution in the process.
<b>7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities.</b>	Although the program has the potential to reduce fossil fuel usage through the utilization of forest biomass for energy (along with other programs that fund biomass utilization), such activities have not been funded sufficiently to make them economically viable.
<b>8. Advance health equity outcomes and at minimum, do not create more harm.</b>	N/A
<b>9. Build wealth in EJ communities, including through high roads job creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.</b>	The Forest Health program has done well to establish local job and workforce development opportunities to build local wealth for recipient communities. CAL FIRE is working on methods to further catalyze wealth-building potential on the local level.
<b>10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.</b>	Although CAL FIRE has been very proactive in collecting data to monitor equity outcomes, this has been perceived as a burden by receiving communities that have to track and report metrics.

## Recommendations

- To Legislature

- Increase funding specifically for Tribal Nations and Indigenous communities to conduct traditional forestry management practices through programs like Forest Health.
- Fund low-carbon biomass utilization investments which would provide opportunities for local economies while making productive use of byproducts from fuel reduction activities.
- **To CARB**
  - Provide additional support and guidance for CAL FIRE, Forest Health grantees, and grantees' contractors in handling required reporting activities—in particular, reporting on employment outcomes.
- **To CAL FIRE**
  - Continue to expand and recognize the legal rights of Tribal Nations and Indigenous communities in California to conduct traditional forestry management practices, including the use of controlled and cultural burns without burn permits, with as few hurdles as possible and in ways that respect Tribal sovereignty.
  - Expand technical and administrative assistance for application and reporting requirements, to lower any barriers to access for organizations.
  - Ensure more consistent project management staffing to maintain interpersonal continuity between CAL FIRE staff and Forest Health funding recipients.
  - Expand outreach specifically to Tribal Nations and Indigenous communities to ensure that they are able to access Forest Health funding opportunities, and understand potential barriers to funding.
  - Explore whether any underresourced communities that could benefit from Forest Health funding may have missed out on opportunities due to narrowly missing out on Priority Population designation.

## Equity Analysis

### EQUITY IN THE PROGRAM GOALS

## **Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities.**

While the term equity and racial equity is not explicitly mentioned or defined, the program prioritizes projects that benefit “priority populations.” CAL FIRE has expressed a commitment in interviews to increasing equitable outcomes for recipient communities in ongoing investments, particularly for Tribal Nations and Indigenous communities. When the legislature designated (non-GGRF) funding in the 2021 state budget for CAL FIRE “for competitive grants for Native American tribes,” the agency collaborated with the California Natural Resources Agency to administer these funds through a new set-aside program for Tribal Nations under the broader Forest Health programmatic umbrella for the 2022/23 grant cycle, thanks in part to sustained advocacy from Indigenous organizations.<sup>217</sup>

CAL FIRE is also working to ensure that Forest Health funds go to low-income and SB 535 / AB 1550 Disadvantaged Communities—including through setting a goal with CARB to invest 40% of CCI Forest Health and Wildfire Prevention Grants dollars in low-income communities.<sup>218</sup> Ten percent of the application score is scored on a binary 0 or 10 score based on whether the majority of the project treatment area falls within a low-income or Disadvantaged Community—which has been identified by some recipients as a large advantage in receiving funding. CAL FIRE staff have, however, expressed concerns in interviews about whether some populations who could substantially benefit from Forest Health funding are less competitive due to missing out on Priority Population designation, based on their own conversations with grantees.

## **EQUITY IN THE PROGRAM PROCESS**

### **Center the agency and stated needs of EJ communities, Tribal Nations, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.**

CAL FIRE has generally made efforts to solicit feedback from applicants and participants in determining programmatic changes. CAL FIRE posts draft grant guidelines each year and asks for public input before finalization. After the application process, CAL FIRE staff offers the opportunity for successful and unsuccessful applicant organizations to provide feedback and to ask questions about their application; CAL FIRE staff noted that most applicants participate in this process.

There have been significant concerns raised by Tribal Nations and Indigenous program participants around state grants and Tribal sovereignty; although these concerns are true across CCI as a whole, they were specifically brought up in the context of Forest Health in our interviews.<sup>219</sup> Tribal Nations and Indigenous communities in California have used fire as an effective forest management tool for thousands of years, and it was only with the colonization by European settlers that complete fire suppression became the enforced blanket treatment for forest management. However, Tribal Nations

never gave up their right to use fire on their ancestral lands for ecological and cultural purposes, and some view fire as an absolutely critical resource for their survival—with one Forest Health participant stating that “without fire, we don’t exist.” Tribal Nations and Indigenous communities around California view control over their own lands and natural resources within their lands as “one of the most critical retained powers for Tribes”—including the use of fire.<sup>220</sup> Some Forest Health participants shared with us that they view the requirement to apply for burn permits and work with state agencies to use fire on their territories as a violation, then, of their sovereignty. As such, some Indigenous groups prefer to partner with other organizations to use Forest Health funding, so that the partner organization goes through the necessary permitting processes and then works with the Indigenous community on the burns.

That being said, some Forest Health grants have taken positive steps to restoring traditional fire practices for Tribal and Indigenous recipients. Will Harling, Director at the Mid Klamath Watershed Council, connected the power of history to these actions—stating that “the fact that the suppression organization [CAL FIRE] that is directly responsible for taking that power away is now investing in returning that power to...Indigenous women to implement cultural burns is really an important step in the right direction.” As an agency, CAL FIRE has also rescinded a previous requirement for Tribal Nations to sign Limited Waivers of Sovereign Immunity to receive Forest Health funding. The Legislature has passed policies since 2021 to reduce financial liability for those conducting prescribed and cultural burns through SB 332 and SB 926, and is currently considering SB 310 (as of the drafting of this report in August 2023), which would specifically recognize Tribal sovereignty over cultural burning within their ancestral territories.<sup>221</sup> Although good steps, continued progress on these fronts is desired by Indigenous communities, so that these instances of empowerment are the new normal.

### **Minimize burdens and barriers for priority groups in accessing and utilizing resources.**

The Forest Health program has minimized barriers to utilizing resources by allowing for large-sum grant awards—up to \$7 million—which allow recipients to plan for and implement multi-year landscape-scale projects in comparison to grants that fund more “piecemeal” projects. Options for advance payment (which can be made available to selected recipients at CAL FIRE’s discretion) were also cited by some of our interviewees as being helpful for providing flexibility around paying for equipment and labor services up front.<sup>222</sup>

Throughout the program process, the recipient organizations that we interviewed also generally view CAL FIRE staff as very helpful—particularly in being flexible in changes to land treatment funding allocations. During the application process, applicants must forecast land treatments on an acre-by-acre basis. But often, organizational capacity limits the ability for applicants to actually ground-truth these estimations during the application phase’s projected needs before the application must be submitted.<sup>223</sup> Participants report that CAL FIRE has been flexible where possible in allowing changes to grant agreements regarding land treatments if organizations find that an alternative

process to improving forest health and wildfire resiliency would be more effective, circumventing a potential barrier to achieving these shared goals.

However, a barrier that came up several times during our interviews with funding recipients was challenges around reporting. Funding recipients must report on a variety of metrics that require expertise in mapping software, including one that asks organizations to map every acre in their grant area before and after treatments.<sup>224</sup> Even though grant dollars can be utilized to budget for these activities, these reporting requirements were identified as being burdensome, particularly for those organizations with very limited capacity. While CAL FIRE has offered assistance and training in completing reporting requirements, they have been met with mixed reviews on their effectiveness from the recipients we spoke with. High staff turnover within CAL FIRE over the past few years has also led to reduced capacity for technical and reporting assistance.

### **Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.**

By design, the Forest Health program's grants are highly collaborative. This serves to increase regional capacity to conduct forest management projects across much larger land areas that often have a patchwork of ownership. This is critically important to protecting forest health, since wildfires don't see boundaries on the ground. This approach has helped foster relationship-building among grant recipients and their partners—particularly among Tribal Nations and rural community-based organizations that are involved in projects. This can act as a catalyst for future opportunities for joint forest management projects.

The large sums of funding that program participants have received has also greatly expanded community capacity to engage in longer-term investments that can more reliably ensure future wildfire resiliency, forest health, and power-building opportunities. As one participant pointed out, these levels of funding allow not only for the actual land treatments, but also for investment in long-term resources like job positions and equipment to build longer-term structures to manage fire.

## **EQUITY IN THE PROGRAM OUTCOMES**

### **Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities.**

The Forest Health program has been mostly effective in producing desired, multi-benefit outcomes for low-income and Indigenous communities. The program has increased some Tribal Nations' ability to conduct culturally prescribed burns—which serve to fight tree pathogens and pests, restore culturally-important plants like oaks and acorns, and begin to restore the ability to conduct traditional land management practices that have been restricted by the state. Recipient organizations have also been able to remove and replant dead trees to restore ecosystem health, in addition to removing



invasive species like lilacs from the forest environment. The sheer amount of funding provided by the program has allowed long-term investment and securement of all of these benefits and to maximize their desired resiliency impacts for receiving communities. Despite these multi-benefit outcomes, the Forest Health program has not been as successful in catalyzing positive economic impacts through biomass utilization.

### **Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.**

The Forest Health program alone accounts for nearly 20% of all of the greenhouse gas emissions reductions for the entire CCI suite of programs—more than any other CCI program apart from the Dairy Digester Research and Development Program.<sup>225</sup> By restoring natural forest landscapes through controlled burns, reforestation, and fuels reduction, the Forest Health program has helped to prevent uncontrolled, catastrophic wildfires. To date, the program has treated over 200,000 acres of forest landscape in California<sup>226</sup>—resulting in an estimated 18,990,000 metric tons of CO<sub>2</sub> equivalents in greenhouse gas reductions from 2015 to 2022, according to CARB estimates.<sup>227</sup> While it is worth noting that GHG reduction projections from the future avoidance of carbon emissions due to catastrophic fire events and long-term forest degradation can be imperfect, this estimate represents one of the highest GHG reductions among all CCI programs.

The Forest Health Program also contributes to reducing GHG pollution through the creation of wood products with removed forest biomass, which maintains the carbon storage of the biomass. This averts the burning of biomass in open piles, which releases the stored carbon directly into the atmosphere as a greenhouse gas.<sup>228</sup> CAL FIRE also claims that the burning of biomass instead of fossil fuels reduces local pollution burden, although the literature on that is still debated.<sup>229</sup> CAL FIRE should take a closer look at reducing the pollution caused by biomass fuel utilization, while still allowing rural communities to benefit economically from these activities.

### **Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.**

Overall, the Forest Health program has provided some opportunities for low-income and Indigenous communities to build collective wealth for the long term. Many recipients we spoke with confirmed that local jobs in brush clearing, forest management, and administrative forestry were supported as a direct result of the program—all opportunities for those workers to build wealth and increase their financial stability. Again, the large amount of investment in communities provided by Forest Health has allowed recipients to purchase equipment and fund local workforce development programs that will create long-term employment benefits. However, no job quality standards have been attached to these investments and the sector is largely non-union, leading to concerns about potential low wages, dangerous working conditions, and non-local contract work.<sup>230</sup>

For their part, CAL FIRE is also working to increase business and workforce development opportunities through closely tracking the actual number of jobs enabled by the Forest Health program, in addition to their initial projections provided at the start of each grant period. The agency is also working to determine how to ensure that local contractors are hired to do the physical work of forest management to ensure that those contracting dollars are being reinvested into local economies, without being overly burdensome or restrictive on recipients' hiring decisions. While some CAL FIRE programs have contributed to funding the labor of incarcerated individuals in limited instances, Forest Health is not one of these programs. With this said, funding from Forest Health, as well as other programs, has the potential to play an important role in providing permanent employment opportunities for formerly incarcerated firefighters in forest restoration work.

One area that may deserve more attention is creating economic opportunities through biomass utilization. The Forest Health program allows grantees to use biomass removed during fuels reduction to be converted into saleable wood products, masticated, or burned for power generation. While there has been funding for these activities through the Forest Health program, other non-GGRF CAL FIRE programs,<sup>231</sup> and various state subsidies, funding recipients report that it has not been at the scale necessary to meet the needs and opportunities presented for this sector, as many tons of biomass are being generated and the workforce and infrastructure to transport and process the materials is currently underdeveloped. Joanna Lessard, Watershed Manager for the Yuba Water Agency, noted that biomass utilization projects are currently underfunded, with many programs maxing out funding at \$2 million per project—which doesn't go far enough when even a small biomass project can cost more than \$25 million to build, and when funds are often non-stackable with trucking subsidies.

CARB has already set a goal to expand biomass processing infrastructure that produces low-carbon outputs, and could work with CAL FIRE and other state agencies on investments and subsidies to increase public funding for facilities, improve transport infrastructure, and provide biomass price supports in a coordinated manner that is easier for both administering agencies and funding recipients.<sup>232</sup> These actions would provide significant economic development opportunities for those communities that depend on the forest economy, while also utilizing the biomass produced by fuels reduction activities.

## EQUITY IN MEASUREMENT, EVALUATION, AND ACCOUNTABILITY

**Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.**

Overall, CAL FIRE tracks the standard equity metrics required of all CCI programs by CARB. However, there is broad agreement among grant recipients that the reporting requirements and metric tracking for the Forest Health program are overly burdensome. Metrics requested for tracking can

often require a great deal of technical expertise and administrative capacity to achieve, and sometimes there are new metrics requested by CARB that add to recipients' reporting burdens. CAL FIRE has made efforts to make reporting less burdensome through offering technical assistance, to mixed results due in large part to issues of understaffing and underfunding by the state. Simply put, having more capacity would enable CAL FIRE to provide more technical assistance to more organizations. It would also be helpful for advocates if there was public tracking around the amount of Forest Health funding that is benefiting Tribal Nations and Indigenous organizations.

# 5. Low Carbon Transit Operations Program

## What is the Low Carbon Transit Operations Program?

The transportation sector contributed close to 40% of the State's greenhouse gas output in 2020, making it the single largest contributing sector.<sup>233</sup> Within transportation, passenger vehicles are the single greatest contributor to emissions,<sup>234</sup> underscoring the importance of decarbonizing this sector through the transition to zero emission vehicles, as well as encouraging greater use of public transportation.

The Low Carbon Transit Operations Program (LCTOP) provides funding to transportation agencies to implement operations or capital projects that reduce GHG emissions and improve mobility. The program emphasizes providing benefits to Disadvantaged Communities (DACs). LCTOP is one of the few CCI programs that receives continuous appropriations (5% annually) from the Greenhouse Gas Reduction Fund (GGRF).

Currently, LCTOP sits within the broader context of a challenged transit landscape contending with multiple concerns, including reduced revenue and ridership that have not recovered since the COVID-19 pandemic,<sup>235</sup> an impending fiscal cliff,<sup>236</sup> and critical but costly mandates to transition all buses to zero-emissions buses by 2040.<sup>237</sup>

## What Projects Did LCTOP Fund?

LCTOP has funded the creation or expansion of bus or rail services; the purchase of electric vehicles or fueling infrastructure; the development of transit stops, street furniture, and street trees; the maintenance and operations of services and facilities; as well as free or reduced fares for riders.<sup>238</sup>

## How has the program fared in terms of equity?

The vast majority of LCTOP funding—96% as of November 2022—is benefiting DACs, and many of the investments have created tangible, visible benefits. Funding the expansion of transit services on bus and rail lines creates immediate impacts for transit users, as has funding for programs like on-demand rideshare and free or reduced transit passes. LCTOP funds have also been used for pilots such as free rides for college students.

The program is notably easy to use for transit agencies, allowing for effective delivery. The program's reliable year-to-year funding from the GGRF is made available to transit agencies on an allocation basis, allowing agencies to plan pipelines for projects in advance.

While the program is easy to use, there have been some tensions on the program's use for capital projects (e.g., purchase of EV buses, charging infrastructure) versus operational expenditures (e.g., expanding transit services, offering free or reduced fares). In order to respond to the State's Innovative Clean Transit (ICT) regulation<sup>240</sup> which requires all public transit fleets to transition to zero-emission buses (ZEB) by 2040, many agencies have been using LCTOP funds for EV bus purchases, making trade-offs from operation activities in the process. Some transportation advocates have raised concerns around this, noting that given the availability of other funding opportunities (e.g. the Transit and Intercity Rail Capital Program, federal grants) for capital projects, LCTOP funds should be more carefully reserved for operations efforts which provide more tangible, immediate benefits to riders—particularly for low-income transit users seeking service reliability and affordability first and foremost.

Outside of the LCTOP specifically, several transportation agency stakeholders interviewed noted a desire for deeper support from the State for regional coordination around meeting ZEB transition mandates as well as accessing federal funding opportunities.

**Administering Agency:**  
**California Department of  
Transportation (Caltrans)**

**CCI Funding Allocated:**  
**\$943.2 million (6.08% of total CCI)**

**Dollars Implemented:**  
**\$776.8 million**

**Reported Implemented Dollars Benefiting  
Priority Populations:**  
**\$748.8 million (96%)**

**Estimated GHG emissions reductions**  
**6,327 MTCO<sub>2</sub>e (6.51% of total CCI)**

**Cost per GHG emissions reductions (\$/  
MTCO<sub>2</sub>e)**  
**\$123**

**Years of Operation**  
**2014-present**  
\* as of November 30, 2022<sup>239</sup>

**Figure 24: Summary of Equity Analysis of Low Carbon Transit Operations Program using ECIPs**

Equitable Climate Investment Principles	LCTOP
<b>1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities</b>	<p>Equity is not explicitly defined, but the program includes a 50% set-aside requirement for funding recipients, as well as internal goals to deliver 80% of program benefits to Priority Populations. Program does not explicitly advance race-conscious solutions; but funds are intended to improve transit which is largely used by low-income individuals and people of color in the U.S.</p>
<b>2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.</b>	<p>The degree to which investments reflect community-priority transit projects was unclear. While funding for transit operations offers immediate benefits, there is a sentiment that dollars for capital projects, in particular the purchase of electric vehicles, is not as helpful for addressing low-income transit users' immediate needs (e.g., service reliability, affordability).</p>
<b>3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.</b>	<p>LCTOP is an easy-to-use program; funds are allocated to transportation agencies based on a formula and agencies can access dollars non-competitively.</p>
<b>4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.</b>	<p>While not a goal of the program, LCTOP has assisted smaller agencies in “leveling up” in their technical understanding of how to estimate VMT reductions and GHG emissions reductions.</p>
<b>5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis</b>	<p>The vast majority of LCTOP funding, 96% as of November 2022, is benefiting DACs, and many of the investments have created tangible, visible benefits.</p>
<b>6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.</b>	<p>Air pollution improvements occur from program investments in clean transportation vehicles, infrastructure, transit operations, and mode shift.</p>
<b>7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities.</b>	<p>Program contributes to reduced fossil fuel reliance by encouraging more transit and funding low-carbon transit infrastructure.</p>

<b>8. Advance health equity outcomes and at minimum, do not create more harm.</b>	Low-carbon transit investments help reduce air pollutants and contribute to health equity outcomes accordingly.
<b>9. Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.</b>	N/A
<b>10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.</b>	Program managers check in to make sure that funds are being utilized as described, using calls as well as occasional site-visits.

## Recommendations

- **To Caltrans and CARB**

- Consider creating set-aside requirements for transit agencies to utilize LCTOP funds for operations activities (e.g., minimum 70%).
- Support more regional dialogue and gap analyses among local transit agencies to improve coordination around the ZEB transition mandate—including necessary dialogue with utilities for charging infrastructure—and to improve coordination around accessing competitive federal funding.
- Provide more tangible outcome numbers through external reporting (e.g., how many buses have been purchased using program dollars, how many riders have been served).
- Provide data through external reporting on what percentage of program dollars have gone to capital versus operations projects to-date

- **To Other CCI Administering Agencies:**

- Check in on funded investments. Some Caltrans staff did site visits early on in the program to check in on how projects were being implemented which helped set the tone for continued accountability in future rounds



# Equity Analysis

## EQUITY IN THE PROGRAM GOALS

### Driving with equity

The LCTOP does not include any component that is explicitly race-conscious. However, it is important to note that the program is one of the few available sources of public transportation funding in the State that can be used to fund transit operations, in addition to capital projects. Transit throughout the U.S. is largely used by low-income individuals and people of color.<sup>241</sup> Improvements in transit operations—e.g., expanded service hours or frequency, shorter wait times, improved safety—all provide immediate benefits to a largely low-income and POC user base.

For any transit agencies whose service area includes a DAC, at least 50% of received LCTOP funds must be utilized for the benefit of DACs.<sup>242</sup> The program also has internal goals to deliver 80% of program benefits to Priority Populations.<sup>243</sup> Several interviewees (both transit agencies and LCTOP program staff) noted that these requirements do matter in pushing agencies to deliver benefits to DACs; the requirement ensures that agencies identify DACs in their service area and strategize to deliver investments there—something that would not be done absent the mandate. We also learned through interviews that at least one transportation agency has returned funds back to Caltrans in the past because they did not wish to abide by this 50% investment requirement, as vocal conservative community members did not wish to invest in transit operations or infrastructure in DACs.

While the intention of the 50% funding requirement is helpful for advancing equitable outcomes, some interviewees noted that CalEnviroscreen is not always the best tool for identifying places that would explicitly benefit from transit investments. For example, a staff person from Monterey-Salinas Transit noted that there is a DAC in the agency's service territory near a former military base, but that there are very few people living in that area, so it does not make sense as a location for transit investments. In this example, the DAC had a high CES score from relatively high environmental pollution burdens (i.e., clean up sites, groundwater threats, hazardous waste, and impaired waters), but not from high air pollution (i.e., ozone, PM 2.5, diesel PM) which could be improved through clean transportation investments. Another interviewee brought up this tension and asked the question of how transit investments would help alleviate pollution burdens in places that are DACs because they are affected by pollutants like toxic waste, and not air quality.

## EQUITY IN THE PROGRAM PROCESSES

### Centering the agency of priority communities

LCTOP requires that transit agencies have their funding allocation requests publicly approved through a resolution presented to the transit agency Board.<sup>244</sup> This should, in theory, allow the public to weigh in on the content of the funding allocation request—what projects are proposed, dollars requested, and how much funding will be going to DACs. We learned from an interview with a staff member from the San Joaquin Regional Transit District, that community members from its ridership do participate in these Board meetings and have weighed in with questions about specific routes. However, we also heard counter-examples from the LA region, from advocates who have utilized public meetings to express concerns, but have seen funding decisions from transit agencies approved with no response.

Move LA, a nonprofit that advocates for equitable mobility solutions in the LA region, has spoken up over the years calling for LA Metro to utilize LCTOP funds for operations or purposes that increase ridership, such as fare-free transit passes. In 2023, Move LA advocated for use of LCTOP funds for free transit; ultimately, LA Metro utilized its FY 22-23 LCTOP funds of \$52M for the procurement and installation of charging infrastructure in the North San Fernando Valley, without funds reserved for operations or transit passes.<sup>245</sup> Eli Lipmen, Executive Director of Move LA, noted that given the recent influx of funding opportunities for transportation capital projects, particularly at the federal level, transit agencies could leverage more of these while protecting LCTOP funds for operations. “There are few pots of money specifically for operating frequent and reliable service, particularly in California. The LCTOP program is an existing pot of funding that can be used to run better service and support ridership goals, so it is frustrating to see operations-eligible funding go to capital instead, when many agencies are struggling to maintain service.”

This trade-off between using LCTOP funding for operations versus capital projects came up in other interviews. A staff member from a transportation agency in the Central Coast noted that the agency has devoted the last two cycles of LCTOP to funding capital projects—in particular, purchasing electric buses—in order to meet the state EV transition mandate. This meant that operations previously supported through LCTOP—for example, free rides for a popular Sunday bus route—had to be discontinued to divert resources.

### Minimizing burdens and barriers to utilizing resources

LCTOP is one of the easiest programs to utilize among those reviewed for this report. Funds for the program are allocated to transportation agencies “based on State Transit Assistance (STA) eligibility funds where 50% of the funds are designated to regional entities and the other 50% for transit operators.”<sup>246</sup> This formula effectively guarantees funding to transit agencies without requiring a competitive grant submission. Because the program receives continuous allocation of 5% from the

GGRF each year, there is reliability in funding; even though the exact dollar amount may change based on cap-and-trade auction revenues, knowing that some amount of funding will be coming each year allows agencies to plan for projects in advance. The program also provides payment up-front instead of on a reimbursement basis, which was cited as being helpful, particularly for smaller agencies.

The process of requesting the funding through the submission of an Allocation Request was also identified as being very simple. Transit agencies must use an Excel spreadsheet that auto-populates fields and only takes a few hours to put together in contrast to grant applications which can take months and extensive staff capacity to put together. The flexibility to roll-over program dollars to stack funds across multiple years for capital projects was also cited as a helpful dimension of the program.

One identified challenge was around the GHG emissions reductions calculator tool created by CARB. One interviewee noted that there is a mismatch in language and skills between modeling experts at CARB who develop the calculator, and Caltrans transportation subject matter experts and transit agencies. Because CARB modelers are not always familiar with the range of transportation investment types that are possible, as well as their nuances, there have been times when the GHG calculator model did not include inputs for selected project types or would malfunction.

### **Community capacity, leadership, and power building**

While not a goal of the program, LCTOP has assisted smaller agencies in “leveling up” in their technical understanding of how to estimate VMT reductions and GHG emissions reductions by providing direct assistance with filling out allocation request forms which require this information. A former LCTOP program staff member noted that these skills and calculations were sometimes leveraged by smaller agencies to access other funds beyond LCTOP.

While outside of the direct scope of the LCTOP, we heard from multiple interviewees that more capacity building and readiness building is necessary for transit agencies to prepare for California’s clean fleet transition mandates and also to access federal funding opportunities. An interviewee from the Sacramento Regional Transit District noted that many agencies are doing the same thing right now—trying to access funding to meet fleet transition goals—and that more coordination would be helpful so that neighboring agencies are not unknowingly competing against each other for the same federal grant programs. In addition, we also heard that more State support would be helpful for transit agencies to coordinate with utilities around charging infrastructure.

## EQUITY IN THE PROGRAM OUTCOMES

### Producing desired, multi-benefit outcomes

The vast majority of LCTOP funding—96% as of November 2022—is benefiting DACs, and many of the investments have created tangible, visible benefits. Funding to expand transit service on bus and rail lines creates immediate impacts for transit users, as do funding for programs like on-demand rideshare and free or reduced transit passes. LCTOP funds have also been used for pilots such as free rides for college students. Staff from one transit agency noted that this particular pilot was so popular that the agency was able to demonstrate it as a proof-of-concept to the local community college district which continued to finance the program independently.

## EQUITY THROUGH EVALUATION AND ACCOUNTABILITY

### Evaluation and Accountability

LCTOP funding recipients must report on metrics standards to CCI requirements, including the amount of funding providing benefits to Priority Populations, VMT reductions, GHG emissions reductions, air quality benefits, and estimated jobs supported, among other metrics.<sup>[247](#)</sup>

Although the program provides funding up-front to users, program managers check in to make sure that funds are being utilized as described, for instance by checking that community engagement described in the funding application is happening, and performing site visits to check that purchased electric vehicles are being deployed. In particular, program staff conducted site visits in early rounds of the program. The goal was not to be punitive, but to ensure that investments were indeed producing their intended benefits, and also to demonstrate to transit agencies that Caltrans was taking accountability seriously, which, according to program staff, helped set the tone for future rounds.

# 6. Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) Program

## What is the Clean Truck and Bus Vouchers (HVIP) Program

In California, it is estimated that trucks represent approximately 6% of registered on-road vehicles but produce about a third of all NOx emissions.<sup>248</sup> Transitioning fleets to cleaner vehicles is critical for not only meeting the state's GHG goals but for environmental justice, as air pollution from heavy-duty trucks and buses disproportionately affect low-income communities and people of color<sup>249</sup> who are more likely to live closer to high-traffic roadways and experience higher rates of respiratory and cardiovascular illnesses, and other adverse health impacts as a result.<sup>250 251</sup>

The Clean Truck and Bus Vouchers/Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) program provides vouchers for the purchase of zero-emission trucks, buses, and other heavy- and medium duty vehicles.<sup>252</sup> The goal of the program is to accelerate market transformation towards clean, advanced vehicles by providing point-of-sale vouchers to lower the cost of these vehicles.<sup>253</sup>

## What Projects Did HVIP Fund?

Between 2010 and April of 2022, "HVIP has supported the purchase of over 6,000 zero-emission trucks and buses, 2,500 hybrid trucks, 2,400 natural gas engines, and 290 trucks outfitted with electric power take-off (ePTO)."<sup>254</sup>

How has the program fared in terms of equity?

While the HVIP program was not initially designed with explicit equity goals in place, it has made concerted efforts in recent years to encourage the delivery of these clean vehicles for use in DACs, and to ensure the program is easily usable by smaller fleets, public transit fleets, and public school bus fleets. CARB has done this by creating set-asides, increasing voucher amounts, and tailoring program offerings to groups like small fleets. Currently, it is estimated that 60% of HVIP funding (from the GGRF) has benefited priority communities by being domiciled in DACs or low-income communities.<sup>256</sup> In 2022, 41% of all vouchers were given to public or small fleets.<sup>257</sup> Overall, the program is a low-burden program that is designed to be easy to use by applicants. The program webpage is transparent with data on how vouchers are being used, by whom, and where. As the program continues, caution should be taken to not favor hydrogen fuel cell vehicles over electric vehicles when the latter can run on renewable energy more reliably and efficiently. When it comes to the program’s impact on workforce outcomes, current requirements for program voucher recipients to sign labor law abidance attestations are good, though more can be done to ensure the program produces high quality jobs, using a policy framework like the U.S. Employment Plan.<sup>258</sup>

**Administering Agency:**  
California Air Resources Board (CARB)

**CCI Funding Allocated:**  
\$486.4 million (3.13% of total CCI)

**Dollars Implemented:**  
\$262.8 million

**Reported Implemented Dollars Benefitting Priority Populations:**  
\$155.1 million (60%)

**Estimated GHG emissions reductions**  
987,493 MTCO2e (1.01% of total CCI)

**Cost per GHG emissions reductions (\$/MTCO2e)**  
\$266

**Years of Operation**  
2010 - present  
\* as of November 30, 2022 <sup>255</sup>

Figure 25: Summary of Equity Analysis of Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program using ECIPs

Equitable Climate Investment Principles	HVIP
1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities	Program guidelines have evolved over time to ensure greater benefits reach DACs as well as smaller fleets.

<b>2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.</b>	Environmental, EJ, and labor groups have actively worked to influence the program with wins over time, particularly around getting more program benefits into DACs and small and public fleets.
<b>3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.</b>	Program is designed to minimize burdens for users offering direct point-of-sale discounts without paperwork.
<b>4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.</b>	N/A
<b>5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis</b>	Program provides funding for clean vehicles while coordinating with other agencies on charging infrastructure and vehicle insurance needs.
<b>6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.</b>	Program contributes to air pollutant emissions reductions by funding vehicles that are cleaner than diesel options.
<b>7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities.</b>	Program has phased out funding of natural gas vehicles but continues to fund hydrogen fuel cell vehicles which, unless using 100% hydrogen made through electrolysis and powered by renewable energy, can perpetuate GHG and pollution burdens.
<b>8. Advance health equity outcomes and at minimum, do not create more harm.</b>	Program funds the purchase of vehicles that are overall less polluting and noisy than diesel-powered options, creating health benefits to operators and surrounding communities.
<b>9. Build wealth in EJ communities, including through high road jobs</b>	Program has worked to deliver more dollars to small fleets over time. As part of State-wide legislation, it also



creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.	requires that funding recipients abide by labor laws, including not misclassifying drivers as contractors.
<b>10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.</b>	Program website offers a high level of transparency on how funding is spent and where dollars are going. Program iteratively updates guidelines year-to-year, and has over time, integrated more policies to ensure greater benefits reach DACs and small fleets.

### Recommendations

- **To CARB / CALSTART**
  - Continue to prioritize the delivery of HVIP vouchers to vehicles domiciled in pollution-burdened and low-income communities (i.e., DACs).
  - Support hydrogen fuel cell vehicles only for long-range trucks that are difficult to make electric; continue to support the production and purchase of zero emission battery electric vehicles wherever feasible.
  - Use the U.S. Employment Plan.<sup>259</sup> to support the production and tracking of high-quality jobs as part of the HVIP program.
  - Track data on minority-ownership and women ownership for program users.
  - Support tribes who have unique needs to ensure program offers benefits.
  - Continue to coordinate with the CA Department of Insurance to make sure insurance rates for medium- and heavy-duty vehicles are made affordable.
  - Continue to coordinate with the California Energy Commission (CEC), Caltrans, CalSTA around establishing charging infrastructure for MD/HD transitions, making coordinated activities transparent.

## Equity Analysis

### EQUITY IN THE PROGRAM GOALS

## Driving with equity

The primary goal of the HVIP program is to accelerate the adoption and deployment of clean medium- and heavy-duty vehicles by providing vouchers to reduce their purchase price. Ultimately, the program seeks to advance market transformation by encouraging widespread adoption of clean vehicles, and helping to bring down costs of production in the process. While the HVIP program was not explicitly designed for the purpose of advancing environmental and economic equity, it has made significant changes in recent years to help ensure program benefits reach DACs, as well as entities like smaller fleets.

### Benefits reaching DACs

The program is offered on a first-come first-served basis to fleet owners and operators, and does not have explicit targets to ensure that incentive-supported vehicles operate in pollution-burdened areas of the State—i.e., DACs. With this said, the program encourages the delivery of clean vehicles for use in DACs by offering higher voucher amounts for public or small fleets (10 or fewer vehicles) if the vehicles they purchased will be domiciled in a DAC; and only allowing large, private fleets (over 500 vehicles) to access vouchers if the vehicles will be domiciled in a DAC. While not explicitly requiring that all vehicles supported by HVIP program dollars be located and operating in pollution burdened areas, these requirements and incentives nudge purchasers in the right direction.

### Benefits reaching smaller fleets, public transit fleets, and public school bus fleets

Over the years, HVIP has worked to center selected program users who, compared to large private fleets, may not have as much time, resources, and capital to use HVIP and make the transition to a clean vehicle. These include groups like smaller fleets (particularly smaller owner-operators), public transit fleets, and public school bus fleets. The program has centered these groups by doing the following: 1) increasing voucher amounts for small fleets while decreasing voucher amounts for large private fleets; 2) carving out program dollars for selected users using set-asides; 3) allowing smaller fleets to “stack” other sources of state incentive funding to purchase a qualifying vehicle; and 4) creating a 30 voucher maximum per purchaser per calendar year, to ensure that larger purchasers cannot sweep large shares of program dollars.

Set-asides are important for intentionally reserving and funneling resources to groups that are least equipped to access them. For example, HVIP launched a dedicated “Innovative Small E-Fleets” (ISEF) set-aside in 2022, to do this for small fleets along with other tailored offerings. ISEF allows smaller fleet businesses to access short-term rentals and leases before committing to a full purchase<sup>260</sup> and allows smaller fleets to use HVIP dollars for chargers, fueling, insurance, maintenance, and other costs instead of the vehicle purchase only.<sup>261</sup> These are unique offerings tailored for small fleet program users.

## EQUITY IN THE PROGRAM PROCESSES

### Centering the agency of priority communities

In the context of a program like HVIP, centering the agency of priority communities would look like listening to the voices of the communities most impacted by pollution from large trucks and buses, as well as smaller businesses and other fleets that are less equipped to transition to high-cost electric vehicles, to understand how the program can meet their needs. HVIP solicits public input on the program each year, when CARB's draft annual Funding Plan for Clean Transportation Incentives is released. Environmental organizations such as the Coalition for Clean Air, Sierra Club, and Earthjustice have weighed in on HVIP program guidelines over the years, calling for the program to prioritize funding for pollution-burdened communities and to integrate more stringent jobs outcomes goals into the program among other priorities.<sup>262 263</sup> While we were not able to assess the degree to which all of these demands have been met over time, we learned from interviews with selected environmental and labor advocacy groups who have commented on the program, that the program has shifted over the years to deliver more funding into Priority Communities and small fleets, and that CARB has been willing to engage in ongoing discussions around integrating more robust labor considerations into the program.

### Small fleets

Small fleet operators are harder to reach and face greater barriers to adopting costly clean energy vehicles. Over the years, CARB has made concerted efforts to solicit feedback from this group. In 2021, the program implementer CALSTART surveyed close to 500 small fleet operators to understand their awareness and perceptions of electric vehicles, barriers to entry, and where they receive information. CALSTART also conducted two-hour interviews when designing a dedicated component of ISEF for small fleets and compensated \$200 to interviewees; 100% of these focus group interviewees were minority business owners and 50% were women. In addition to soliciting direct feedback from small businesses, CALSTART and CARB have made efforts to conduct targeted outreach (e.g., at in-person events, postcards); and to offer language support to participating dealers to ensure purchasers can receive program information in their preferred language.

### Minimizing burdens and barriers to utilizing resources

Ease of use is one of the cornerstones of the HVIP program. A vehicle purchaser receives the HVIP discount at the point-of-purchase without having to submit any additional paperwork. Instead, approved HVIP dealers are trained to handle reimbursement paperwork and receive a voucher check from CALSTART afterwards.<sup>264</sup>

## EQUITY IN PROGRAM OUTCOMES

### Producing desired, multi-benefit outcomes

According to CARB, “[s]ince its inception, over 60 percent of awarded HVIP funding has benefited disadvantaged and low-income communities and HVIP funded vehicles have driven more than 174 million miles in disadvantaged communities.”<sup>265</sup>

CARB determines whether dollars are being used to benefit priority populations based on where purchased vehicles are domiciled. According to CARB, anonymized telematics data received from purchased vehicles has shown that the domicile location is a strong estimator of where a vehicle will operate. We can then estimate that the majority of environmental and health benefits stemming from the program—i.e., reduced diesel vehicle air pollution and noise pollution from quieter clean vehicles—have been concentrated for priority populations.

To address charging infrastructure needs, CARB has also coordinated with other agencies including the California Public Utilities Commission, California Energy Commission, and California Independent System Operator. CARB is also conducting outreach to financial and insurance firms to provide education on ZEV transition policies and to encourage groups to develop needed financing and insurance products

### Facilitating wealth building and community wealth building opportunities

According to CARB, the majority of fleets in California are smaller businesses that own 10 or fewer vehicles.<sup>266</sup> There is an opportunity to ensure these small businesses can benefit from and build wealth through the subsidized acquisition of clean advanced vehicles. CARB began to collect participants’ fleet size information three years ago; therefore, it is not possible to know the breakdown of which entities have benefited from the program based on fleet size for the full period in which the program has been running. With that said, in 2022, 41% of all vouchers were given to “public or small fleets (private entities with <\$10 million annual revenue or fewer than 50 employees).”<sup>267</sup>

### Requiring trucking industry to uphold labor standards

After years of organizing by labor and environmental justice groups, AB 794 passed in 2021.<sup>268</sup>

The bill requires that fleet purchasers who receive clean vehicle incentive dollars funded through the GGFRF and other public funding sources in California, adhere to specified labor standards and demonstrate that they do not have any “applicable law violations.”<sup>269</sup> These violations can relate to among other activities, engaging in the illegal misclassification of drivers as independent contractors instead of employees.<sup>270</sup> This practice, which has been prevalent in the trucking industry for decades, can lead to lower wages for misclassified drivers, their inability to receive entitled benefits, as well as

the unfair transference of financial and compliance responsibilities to drivers such as owning, operating, and upgrading their vehicles.<sup>271</sup> As of January 2023, HVIP funding recipients must now submit labor law compliance attestations to a webpage<sup>272</sup> where all attestations are viewable to the public. The attestation form notes that any companies found to be submitting false or misleading information may “...be barred from future participation in CARB incentives....require[d]....to return incentive funding received, and subject ....to enforcement action and other legal remedies.”<sup>273</sup> The public can also file complaints on companies who have submitted attestations but are suspected to be committing labor violations.<sup>274</sup>

## Reducing pollution burdens

By funding the purchase of cleaner vehicles over conventional diesel vehicles, the program dollars funded by GGRF have produced GHG as well as accompanying air quality benefits.<sup>275</sup>

It is estimated that the GGRF funded portion of the program has reduced 1,516 pounds of Diesel PM; 2,570,314 pounds of NOx; and 106,332 pounds of PM 2.5.<sup>276</sup>

## Reducing reliance on fossil fuels

While the vehicles funded by HVIP are cleaner than diesel vehicles, some funded vehicles may still run on fossil fuels and/or “renewable” fuels that are still polluting—e.g., natural gas and hydrogen fuel cell vehicles. Natural gas vehicles were the leading vehicle-type for vouchers between 2017 and 2021 and offered through 2022, though the program has recently archived this technology from its set of eligible vehicles as of 2023.<sup>277</sup> In regards to fuel cell vehicles which run on hydrogen gas, there have been critiques about hydrogen as it is produced presently<sup>278</sup>—largely through the reformation of methane into biogas which can emit NOx, carbon monoxide, and other other particulate air pollutants in the process.<sup>279</sup>

# EQUITY THROUGH EVALUATION AND ACCOUNTABILITY

## Equity Metrics and Evaluation

CARB staff track a variety of program metrics to understand how the program is reaching the communities that are most impacted by cumulative burdens as well as smaller fleets. These metrics include:

- Vouchers and dollar amounts going to vehicles domiciled in DACs
- Vouchers and dollar amounts going to purchasers identified by fleet size as well as reported with Disadvantaged Business Enterprise status

In 2021, CARB also developed an annual survey to ask recent HVIP program users about their purchasing decisions, their experience with the vehicle, and their experience with the program to ensure a continuous feedback loop for program improvements.

During an interview, CARB staff acknowledged that more concerted tracking of dedicated equity metrics is important—for instance, more granular information on fleet sizes, and demographic information such as whether the business is women-owned and/or minority-owned. While participants are not currently required to provide this information, CARB is considering requiring data points like this from participants in the future.

## **Accountability**

The HVIP webpage managed by CARB and CALSTART is very transparent and accounts for every voucher that has been implemented by the program—including where the funded vehicle is domiciled down to the census tract location.<sup>280</sup>

CARB makes iterative updates to program guidelines year-to-year, using information on program demand, the market costs of vehicles, as well as feedback from stakeholders. According to CARB staff, the goal is to balance guidelines to advance the program’s various goals—in particular, to push technology evolution and drive overall costs of clean vehicles down through large volumes of purchases; to keep the program simple and easy to use; and to ensure priority groups like small fleets and public fleets benefit through policies like higher incentives and set-asides. As noted previously, environmental advocate[s] we spoke with noted that CARB has been responsive to feedback about integrating equity considerations over time.

# 7. High-Speed Rail

## What is the High-Speed Rail Program?

The California High-Speed Rail Authority (Authority) plans and administers the High-Speed Rail (HSR) program, an ongoing project to construct the nation's first fully electric high-speed rail system. At speeds of up to 220 miles per hour, the HSR will connect San Francisco and Los Angeles through the Central Valley for Phase 1, with future extensions to Sacramento and San Diego for Phase 2, totalling 800 miles across the state.<sup>281</sup> HSR was designed to be a clean alternative to other types of transportation through its operation on 100% renewable energy, and bring in booms to economic development, job training and creation, land preservation, and more.<sup>282 283</sup>

## What Projects Did HSR Fund?

The program has funded small and disadvantaged businesses, technical assistance for small business applications, and relocation services. Since breaking ground in Fresno in 2015, HSR has funded the completion of over 30 projects and about 30 ongoing projects, including bridges, crossings, and viaducts—although no railroad tracks have been laid.<sup>284</sup> As of 2023, the high end estimate of the 500-mile system of Phase 1 ballooned to \$127.9 billion—almost \$100 billion over the initial estimate, which did not include proper scope, risk projections, or inflation adjustments, when voters approved a down payment of \$9.95 billion in bonds through Proposition 1A in 2008 to help fund the program.<sup>285</sup> Due to the program's massive scale, we focus on the impacts and progress in Fresno.

### Administering Agency:

**California High-Speed Rail Authority  
(under the California State  
Transportation Agency)**

### CCI Funding Allocated:

**\$5.4 billion (25%)—Cumulative  
\$374 million—FY 2022-23**

### Dollars Implemented:

**\$4.3 billion**

### Reported Percentage of Implemented Dollars Benefiting Priority Populations:

**Not included in 2023 CCI annual  
report**

### Estimated GHG emissions reductions:

**84-102 million MTCO<sub>2</sub>e in first 50  
years of operation (by 2079)**

### Timeline:

**1996—**HSRA established

**2015 – present:** Construction period

\*as of November 30, 2022<sup>286</sup>



**Figure 26: Map of California High-Speed Rail Statewide System**



Source: California High-Speed Rail Authority, "Statewide System Map," February 2021, [https://hsr.ca.gov/wp-content/uploads/2021/03/Statewide\\_System\\_Map.pdf](https://hsr.ca.gov/wp-content/uploads/2021/03/Statewide_System_Map.pdf)

## How did the program fare in terms of equity?

Although there have been reports of Fresno community members expressing hope and excitement for the economic development and investments catalyzed by the program, HSR has been the subject of extreme political controversy and confusion, stirring feelings of anger as well as possibility. The program's community engagement efforts have been robust, and the Authority has actually allowed input to change their plans in many instances. Interviewees noted how positive, personal, and effective the Authority's interactions with local communities have been. There has also been intentionality around impacts on Tribal Nations. It has also provided workforce development opportunities and generated local jobs to those who really need them, many of whom are from veteran, minority, or low-income backgrounds.<sup>287</sup>

***“There have been a number of efforts around station design to invite in residents, neighbors, et cetera. I feel like the sequence has never been really clear like, okay, maybe we'll go to this meeting but is this project really happening? There's such a cloud of suspicion and doubt over high speed rail in the Central Valley, for instance, where people are skeptical anyway. It's a hard environment for even well-planned, well-intended outreach efforts.”—Ashley Swearengin, Central Valley Community Foundation***

That said, HSR struggled to finalize contracts and agreements in time for construction, and faces additional issues such as federal disengagement from reviewing and litigation impeding the timeline. HSR's biggest risk is securing full funding, of which inflation, scope and technical design changes, the pandemic, extended schedules, court filings, and more have dramatically escalated costs,<sup>288</sup> delaying benefits to Priority Populations and program completion, and causing many to question whether this program is the best way to spend the largest amount of GGRF dollars. Nonetheless, from July 2006 to June 2021, 57% of the total program investment occurred in Disadvantaged communities.<sup>289</sup> The Authority has set stringent guidelines and participation goals on Small Business Participation, Targeted Hiring, and Environmental Standards—and the program is doing well to meet them. Although HSR takes community input regarding the alignment of the rail, there are some routes in which the Authority must ultimately move forward to acquire the necessary private property for rail construction and provide relocation services.<sup>290</sup> The program has also received top awards for its sustainability, environmental impact, leadership, and performance.<sup>291,292</sup>

**Figure 27: Summary of Equity Analysis of High-Speed Rail using ECIPs**

Equitable Climate Investment Principles	High-Speed Rail (HSR) Program
<b>1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities.</b>	<p>HSR defines equity in program guidelines and goals. Program seeks to center Disadvantaged Communities in outreach and implementation. HSR also examines the history, race, ethnicity, and other demographic factors of the areas impacted by the rail.</p>
<b>2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.</b>	<p>Frequent community conversations to share program information and planning details before the HSR bond passed. HSR continues to hold conversations and expand access by including multiple languages, while providing funding to community organizations in outreach. It also addresses community concerns with action plans and is working with Tribal Nations to respect sacred sites.</p>
<b>3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.</b>	<p>HSR invests in ways for the community to participate in the planning process, including creating Community Benefits Agreements with local municipalities, funding relocation resources through Cities, providing technical assistance for Small Businesses (SBs), and planning for options to discount tickets for certain groups.</p>
<b>4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.</b>	<p>Through community benefits agreements and funding community engagement, HSR is supporting community capacity. It has established a program for college students from groups underrepresented in the sustainable transportation sector to learn about professional opportunities.</p>
<b>5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis.</b>	<p>In years-long processes of including communities in program planning, many community stakeholders have had desired benefits met by the HSR that is aligned with climate adaptation needs of the area. The Authority runs “I Will Ride,” a student outreach initiative to engage college students from historically underrepresented backgrounds in sustainable transportation fields.<sup>293,294</sup> However, HSR has met</p>

	criticism due to delays in benefits.
<b>6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.</b>	HSR will help the state achieve its climate goals through the future operation of a fully electric and sustainable rail line. It is also taking steps during construction to create a net-zero impact through tree planting, steel and concrete recycling, and environmental conservancy. See more below.
<b>7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities.</b>	Although HSR is minimizing reliance on diesel and gas fuel and equipment during construction by transitioning contractors to Electric Vehicles (EVs) for travel to construction and requiring use of the cleanest off-road diesel engines, environmental justice advocates are raising concerns in blending rail infrastructure due to proposed development of facilities and reroutes that worsen air quality in disadvantaged and vulnerable communities.
<b>8. Advance health equity outcomes and at minimum, do not create more harm.</b>	Although HSR is committed to minimizing disproportionately high human health effects, there is no explicit guideline that weaves in measures for health equity. HSR signed agreements with local agencies and lifted up the zero-emission rail to address the air quality in the Central Valley, a region facing some of the worst air pollution in the nation. <sup>295</sup>
<b>9. Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.</b>	HSR has robust hiring standards and workforce development and training programs that strengthen the employment and skillbase of local residents, especially those who are from Disadvantaged populations. HSR also has goals around small business involvement.
<b>10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.</b>	HSR clearly establishes equity metrics customized to communities and has received third-party evaluations that highlight the program's leadership and sustainability. It has produced biennial project reports since 2015 and yearly sustainability reports since 2018.

## Recommendations

- To HSRA, in addition to the many strategies that are already building equity:
  - Continue communicating with the public, particularly those affected by the rail, and in customized, accessible, and culturally relevant ways.
  - Continue signing community benefits agreements, especially with DUCs.
  - Support local businesses directly impacted by project construction and offer sustainable funding.
  - Increase level of transparency and collaboration during review periods to allow for more time and attention to review.
- To future investments of similar scale
  - Emphasize communicating early and often, with HSR as a guide. Prepare for critiques on spending too much or too little money on communication.
  - Make sure that plans and contracts are finalized before construction begins to avoid costly delays.
  - Align leadership in order to achieve equity goals.
  - Utilize procurements to make job quality and development a weighted factor to consider for contract award related to such purchases

## Equity Analysis

### EQUITY IN THE PROGRAM GOALS

#### Driving with equity

The Authority has created equity goals such as setting a minimum of 30% of all hours related to project and construction work to be performed by National Targeted Workers (low-income workers who live in low-income communities), while 10% of those hours must be worked by Disadvantaged Workers (low-income workers who face an additional barrier to employment).<sup>296,297</sup> Before taking action, the Authority examines the history and projected trends, vulnerability, race/ethnicity, linguistic isolation, and other demographic factors of impacted areas to understand the region.<sup>298</sup> The Authority also has stated values on environmental justice.<sup>299</sup>

## EQUITY IN THE PROGRAM PROCESSES

### Centering the agency of priority communities

Before the 2008 bond measure even passed, the Authority showed its commitment to inclusive planning by conducting outreach to Disadvantaged communities, Tribal Nations, and the general public, as well as strengthening community engagement by hosting various meetings in the form of public hearings, open house community meetings, community working groups, and more.<sup>300</sup> The Authority keeps lists of advocacy and community groups that advocate for minority or low-income populations. Furthermore, the Authority provides bi-annual training, educational opportunities, and one-on-one sessions to all staff, contractors, and subcontractors on inclusivity in public engagement, policy review, effective and meaningful engagement efforts with low-income and minority stakeholders, and more.<sup>301</sup> Because of the massive scale of this project, interviewees shared that communication and transparency are the utmost important aspect. However, interviewees have also highlighted that the program has become a “political circus” as powerful actors change the direction of the program and make it hard for community members, and the public, more broadly, to navigate.

But interviewees do feel heard by the Authority, and reviewing public comments over time has shown proof of this. For example, noise concerns were a complaint that was frequently brought up over the years.<sup>302</sup> In response, the Authority has committed to building sound walls and barriers, considering noise levels of horns and bells, and removing rail services between midnight and 5 a.m.<sup>303</sup> Another example comes from construction planning when one interviewee, Jan Minami, Project Director of the Chinatown Fresno Foundation, noted the unnecessary complexity of detours but said, “But they have listened to that, and their detours are more direct now than they used to be.”

When engaging with the community, the Authority considers disparities faced by various communities by analyzing racial demographics and vulnerabilities from Census data and outreach to bridge divides in tailored communications and engagement, such as creating ADA-compliant documents and breaking geographic barriers.<sup>304,305</sup> The Authority was pushed to hold meetings in multiple languages and now has expanded language access in languages such as Spanish, Lao, and Hmong, as well as distributing flyers directly to rural communities.<sup>306,307</sup> Furthermore, although not mandatory, the Authority pays Tribal representatives to monitor and provide feedback.<sup>308</sup>

### Minimizing burdens and barriers to utilizing resources

A primary potential harm from HSR comes from acquiring contiguous land for the rail alignment. The Authority considers potential impacts and publicly shares rail plans early for public comment and has changed plans in response to feedback.<sup>309</sup> It pays market value for the property, including fees, expenses, and commissions, and extensively supports relocation efforts by increasing monetary amounts and waiving off previously necessary permits and requirements.<sup>310</sup> Nonetheless, a number

of farmers who sold their land or have had their land affected have waited years to receive the money owed to them.<sup>311</sup> Lawsuits over the land, in addition to environmental reviews and inflation, have slowed down the progress of the HSR—as well as the Authority’s significant attention to community engagement. Interviews have noted technical assistance is available to residents, small businesses, and local governments to make resources and services more accessible.<sup>312</sup>

***“This should be a class action suit if they really want to sell it, but instead they chose to run them all individually and tied the money and the project up for quite a number of years there in different segments. So you can’t build when you have an injunction against you. It was obvious that that ploy was directly focused at derailing the high-speed rail because of politics.”—Kevin Hamilton, Central California Asthma Collaborative***

The Authority conducts specific outreach to Tribal communities to discuss alignments in all planning stages to help the Authority understand how its activities will impact sacred sites. It is currently working with Tribal Nations to reach agreements about rail alignments and how to avoid causing harm.<sup>313</sup>

A few interviewees have shared concerns over pricing of the fares. Fare forecasting follows these formulae, capped at a \$100 fare maximum:

- \$36.30 + \$0.224 per mile for interregional fares
- \$26.94 + \$0.187 per mile for intraregional fares for the SCAG region
- \$17.45 + \$0.150 per mile for intraregional fares for MTC regions<sup>314</sup>

Affordability for low-income riders still remains unclear though there may be discounted options of off-peak riding times. Additionally, parking costs are forecast to range from \$15-\$44.<sup>315</sup>

## **Community capacity, leadership, and power building**

Community Benefits Agreements are being created like the one with the Fairmead Community & Friends, a community organization representing a DUC just north of Fresno. This majority Latinx and historically African American community won a community center, library, and sewer extensions from Chowchilla, improved and stabilized water provision, support for affordable housing, and other infrastructure improvements from HSR, Madera County, and the City of Chowchilla.<sup>316</sup> HSR has also helped build facilities, sewer connections, and reliable water sources in areas like Wasco and Chowchilla.

Funding from HSR to conduct community outreach has also helped some community organizations to expand their capacity. Jan Minami of the Chinatown Fresno Foundation said:



***“This funding with High-Speed Rail will support our organization’s ability to expand the community engagement we do in connecting with the businesses and property owners within Chinatown as well as connecting us with the rest of Fresno and the region. We are able to do the types of community engagement that we want to do in partnership with High-Speed Rail. Having this funding operationally frees up other monies for special projects.”***

The Authority also launched workforce development training programs, such as the Central Valley Training Center, for Disadvantaged populations that include hard and soft skills in their program for various job certifications.

## **EQUITY IN THE PROGRAM OUTCOMES**

### **Producing desired, multi-benefit outcomes**

To help offset costs, maximize and expedite HSR benefits, and more, HSR will partner with other passenger and freight services to integrate and enhance existing rail infrastructure that will accommodate future HSR operations, instead of constructing dedicated HSR infrastructure.<sup>317</sup> In “blending” rail systems at shared corridors, HSR speeds will reduce to 110 miles per hour and affect other service delivery.<sup>318</sup> Interviewees reported that HSR funds have improved local infrastructure by realigning roadways, upgrading highways, and expanding on existing rail infrastructure. One interviewee highlighted how moving rail crossings from at-grade to above- or below-grade can improve safety by decreasing the risk of collisions and relieving traffic, thereby aiding in the timeliness of first responders and increasing mobility with bridges and underpasses, while another marveled at the new I-99 overpasses funded by HSR. HSR Stations are undergoing design to include Wi-Fi connectivity, bicycle servicing, and even areas for food vendors in Stations to catalyze economic development.<sup>319 320</sup> To help local residents and those from Disadvantaged backgrounds develop lifelong skills, the Authority advances workforce development opportunities to these populations to certify them in trades and runs I Will Ride, a student outreach initiative to engage college students from historically underrepresented backgrounds in sustainable transportation fields and connect them to HSR professionals and educational opportunities.<sup>321 322</sup> Although the Authority acknowledged potential gentrification issues as a result of the rail, community members and City employees in the Fresno region interviewed for this study did not highlight gentrification as a major concern.

### **Reducing pollution burdens**

One of HSR’s core values is sustainability. They are using carbon sequestration to achieve net zero emissions during construction. Construction contractors must recycle 100% of the steel, and

concrete related to construction work has decreased emissions.<sup>323</sup> The Authority is also achieving decreases in diesel and gas use during construction by requiring use of the cleanest off-road diesel technology and future on-road usage of zero-emissions vehicles.<sup>324</sup> Outside of construction, EV and hydrogen car fueling are planned for rail stations' climate adaptation systems through exposure analysis of items such as precipitation and riverine flooding, wildfire, storm surge, and more, and climate hazards in analyses.<sup>325</sup> HSR funds have planting more than 7,100 trees<sup>326</sup> and plan for more to improve air quality, and reduce energy use and stormwater runoff.<sup>327</sup> The zero-emission trains are expected to reduce GHG emissions by 2 million metric tons of carbon dioxide equivalent (MMTCO<sub>2</sub>e), annually.<sup>328</sup>

## Creating health benefits

HSR is committed “To avoid, minimize, or mitigate disproportionately high human health and environmental effects, including social and economic effects, on minority and low-income populations,” but there is no explicit guideline that weaves in measures for health equity.<sup>329</sup> HSR is also working to minimize other criteria pollutant emissions, such as ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides and lead, through measures such as adhering to fleet procurement requirements.<sup>330</sup> Our research shows that HSR mostly relies on delivering a 100% clean transportation system as a fulfillment of this commitment, but is also signing local agreements for achieving clean air quality in jurisdictions. As the Central Valley suffers from some of the worst air pollution in the nation, relief is desperately needed.<sup>331</sup>

## Facilitating wealth building and community wealth building opportunities

As of June 2023, the program has created over 11,000 jobs.<sup>332333</sup> Through its Targeted Hiring Initiative, HSR ensures that low-income communities of color and Disadvantaged workers in the region receive specific workforce development, job training, and employment opportunities.<sup>334</sup> Their Central Valley Training Center (CVTC) comprehensively trains and provides certifications for at-risk young adults, veterans, and low-income populations in various trades at no-cost, producing over 100 graduates since launching in 2020.<sup>335 336 337</sup>

***“They've done a really great job at Workforce Development, and I appreciate the contractors who've been really supportive. I live in an older neighborhood, and I know a young man up the street who went to work there and now is in the union and doing great, and he talks about his friends that he's turned on to it and now they're working too. And I'm like, this is what we want to see, right? This is the kind of economic development that has a lasting impact, and that's what I'm always looking for. What's gonna be here tomorrow, what's gonna be here next year versus short term?”—Kevin Hamilton, Central California Asthma Collaborative***

The Authority's Small Business Program sets out to include 30% of small businesses including Disadvantaged Business Enterprise (DBE), Disabled Veteran Business Enterprise (DVBE), Microbusiness (MB), and others. As of March 31, 2023, there are 771 certified small businesses working on the program statewide, with 210 of those working in the Central Valley.<sup>338</sup>

## EQUITY THROUGH EVALUATION AND ACCOUNTABILITY

On sustainability and environmental impact, the HSR program has received accolades from the Institute for Sustainable Infrastructure<sup>339</sup> (the Envision Platinum rating), and GRESB (who ranked it a top infrastructure project in North America in 2021).<sup>340</sup> The Department of Conservation regularly reports benefits of projects and assesses GHG emissions.<sup>341</sup> In a 2018 audit, HSR was held accountable for contract mismanagement, its considerable delays and high cost, failure to deliver benefits to Priority Populations, among others.<sup>342</sup> The audit's recommendations were met with welcome<sup>343</sup> and the Authority began an overhaul of its practices.<sup>344</sup>

In understanding the impacts to communities and the program overall, the Authority evaluates itself biennially since 2015 and with annual sustainability reports since 2018 based on key priorities, such as energy and emissions, sustainable infrastructure, natural resources, station communities and ridership, and economic development and governance, with specific performance indicators for each such as vehicle miles traveled, land conservation, jobs created, and more for each segment.<sup>345346</sup> Furthermore, the Authority also reviews in its project section reports items such as land use, aesthetics and visual resources, regional growth, and climate change.

# 8. Community Air Protection Incentives (AB 617)

## What is the Community Air Protection Incentives Program?

Latino, Black, and low-income individuals disproportionately reside in some of the most pollution-burdened parts of California.<sup>347</sup> These places and communities experience disproportionate levels of air pollution from traffic and the goods movement industry, refineries and factories, as well as toxic waste facilities.<sup>348</sup>

In 2017, Assembly Bill (AB) 617 established the Community Air Protection Program, an initiative that supports community-focused approaches to reducing air pollutants and toxic air contaminants (TACs). The program requires local air districts to work in close collaboration with community members in selected neighborhoods (known as “AB 617 Communities”) to identify sources of air pollution as well as potential solutions. Solutions can take form in community-level air monitoring and emissions reductions projects established as part of Community Emissions Reduction Plans (CERPs) and Community Air Monitoring Plans (CAMPs); actions led by local and state actors (e.g., enhanced reporting, stronger regulation of pollution sources) accelerated retrofits of industrial facilities; and “incentives for both mobile and stationary sources.”<sup>349</sup>

It’s important to note the historical context for AB 617 and the reality that many environmental justice (EJ) groups were opposed to its passage from the start.<sup>350</sup> In the process of renewing the State’s cap-and-trade mechanism through 2030 (AB 398), AB 617 was introduced as a “companion bill”<sup>351</sup> intended to address EJ groups’ concerns that cap-and-trade had led to uneven improvements in air quality, and in some frontline communities, an increase in pollution.<sup>352</sup> Both AB 398 and AB 617 were passed. To support AB 617, the Legislature appropriated funding for the Community Air Protection (CAP) Incentives program which can be used to fund projects that reduce air pollution, particularly in heavily burdened neighborhoods. In 2017, the Legislature directed air districts to spend these funds on mobile source projects through the Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program) and the Proposition 1B Goods Movement Emission Reduction Program (Proposition 1B Program) to provide immediate benefits while the first round of 10 AB 617 communities were selected.<sup>353</sup>

Given the historical context and intended purpose of this air pollution reduction program, it is all the more important that AB 617 and CAP incentive dollars are truly driven by community voices and responsive to community desires. Ongoing studies on implementation processes and outcomes of AB 617 activities are being led by researchers from UC Davis.<sup>354</sup> For this case study, we focus specifically on the CAP Incentives program which provides funding for the implementation of AB 617 activities.

As a note, CAP Incentives funding does not exclusively go to AB 617 Communities, although these places are prioritized and required to receive a significant portion of available dollars. Places under consideration for designation as AB 617 Communities, DACs, air district-nominated areas, and places represented by smaller air districts can also access CAP Incentives funds.<sup>355</sup>

## What Projects Did CAP Incentives Fund?

CAP Incentive dollars have been used to fund various types of projects that contribute to air pollution reduction, particularly through cleaner vehicles and equipment in various sectors. The largest segment of funds, \$96.9 million, has gone to off-road agriculture projects; \$63.1 million has gone to other off-road projects; \$72.5 million has gone to funding locomotives; and \$64.7 million has funded marine vessels. In the first two years, the Legislature directed that the program spend funds on projects that qualify for Prop 1B and Carl Moyer Programs.<sup>356</sup> Prop 1B provides funding “to owners of equipment used in freight movement to upgrade to cleaner technologies.”<sup>357</sup> Carl Moyer provides funding to private companies and public agencies to retrofit, repower, or replace engines for heavy-duty vehicles (e.g., trucks, buses) and off-road equipment (e.g., construction and farm equipment, marine vessels).<sup>358</sup> In more recent years, the Legislature has called for funds to be directed to selected AB 617 communities and communities under consideration for future selection. The Legislature has also expanded eligible project types beyond the mobile source projects prioritized early on, to include zero-emission infrastructure, stationary source projects, as well as community-identified projects.<sup>359</sup>

### Administering Agency:

**California Air Resources Board (CARB)**

### CCI Funding Allocated:

**\$1.164 billion (7.5% of total CCI)**

### Dollars Implemented:

**\$494.4 million**

### Reported Implemented Dollars Benefiting Priority Populations:

**\$409.4 million (94%)**

### Estimated GHG emissions reductions

**232,000 MTCO<sub>2</sub>e (0.24% of total CCI)**

### Cost per GHG emissions reductions (\$/MTCO<sub>2</sub>e)

**\$2,129**

### Years of Operation

**2017 – present**

\* as of November 30, 2022<sup>360</sup>

## Boundaries of this case study

- For this case study, we focused on the CAP Incentives program which makes up the lion’s share of funding available for AB 617 activities.
- We worked to assess the degree to which community groups and members of AB 617 Community Steering Committee (CSC) in selected locations have the ability to influence how dollars are spent, whether dollars are being used on desired projects, and whether it is clear how these dollars are being used (transparency and accountability).

- We spoke with at least one Community Steering Committee representative from the AB 617 Communities of Stockton; Eastern Coachella Valley; Shafter, Wilmington / Carson / West Long Beach; and San Diego Portside Environmental Justice Communities (San Diego Portside). We also requested data on how CAP Incentive dollars have been spent from all air districts that include an AB 617 community.
- We acknowledge that this case study is not comprehensive in its breadth and depth as one CSC member's experience could be vastly different from another's. In this case study, we share examples of individuals' perspectives to illustrate a small sample of experiences. We also provide recommendations that we believe would help advance the community-driven goals for CAP Incentives, particularly through continuous improvements in transparency. <sup>361</sup>
- For broader and deeper analysis on the processes and outcomes of AB 617 activities, we encourage readers to reference ongoing [work from UC Davis](#) led by Dr. Jonathan London. <sup>362</sup>

### **How did the program fare in terms of equity?**

CARB's commitment to spending the majority of CAP Incentives in DAC, low-income, and/or AB 617 Communities is a helpful start towards ensuring that these funds provide benefits for the most heavily pollution-burdened communities. When it comes to centering community priorities and having community members drive decision-making on how incentive dollars are spent, our interviews found mixed experiences. The first two years of the CAP Incentives program was spent on vehicle and equipment replacement programs (Carl Moyer and Prop 1B), as directed by the Legislature, without significant community input. This occurred as most selected AB 617 Communities were still working to develop the Community Steering Committee (CSC), as well as their affiliated planning documents (CAMPs and CERPs), and this approach allowed investments to be implemented quickly in the interim. While dollars were spent on activities that help reduce air pollution in high-priority places, local residents did not, in reality, have a significant say in how those dollars were spent across different project types or what types of entities received the dollars. For later program years, we heard of positive experiences from selected CSC members with participatory budgeting exercises conducted between air districts and CSCs. Exercises like this, as well as deeper efforts to integrate clear procedural equity metrics into the program around decision making for CAP Incentives spending, could help ensure that future funding is truly community-directed.

When taking a look at how CAP Incentives dollars have been spent, we identified instances of natural gas infrastructure projects selected by air districts—and in very limited instances, oil and gas companies selected to receive these funds. While representing a small percentage of CAP Incentive-funded projects, we believe that climate investments should not be spent on building out infrastructure that perpetuates fossil fuel use. As of January 2023, natural gas infrastructure has been removed as a project type that can be funded by CAP Incentives, a helpful development to ensure the program does not utilize any future funds towards this project type.

When it comes to transparency and accountability around how CAP Incentives are spent, we found that CARB's Community Air Protection Incentives Project Dashboard provides a strong start, but that

it is still difficult to understand what particular projects and entities are being funded by CAP Incentives across the State.<sup>363</sup> Better aggregating this information through more coordinated, centralized reporting of air districts' data would be a helpful step towards this goal.

Lastly, while creating local economic benefits is not a primary goal of CAP Incentives, we found that there could be opportunities to better integrate this co-benefit into guidelines for future dollars, for instance, by encouraging air districts and CSCs to prioritize local job creation and procurement when using CAP Incentives.

**Figure 28: Summary of Equity Analysis of Community Air Protection (CAP) Incentives using ECIPs**

Equitable Climate Investment Principles	CAP Incentives Program
<b>1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities.</b>	The majority of CAP Incentives must be spent in Disadvantaged and low-income communities; while there is no explicit race-conscious context in program materials and guidelines, goals to deliver funding to DACs help ensure resources arrive in places with higher concentrations of people of color, particularly Black and Latinx individuals.
<b>2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.</b>	While centering community priorities is core to the program, the degree to which community members and CSCs are in practice, driving funding decisions for CAP Incentives seems mixed; activities such as participatory budgeting in recent years are advancing more community-driven decision making.
<b>3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.</b>	Participating in Community Steering Committee meetings is time consuming and has not always yielded investments in community-priority projects to-date.
<b>4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.</b>	While still a work in progress towards continuous improvement, Community Steering Committee meetings have allowed space for ongoing dialogue between community members, air districts, and CARB, and in recent years have produced participatory budgeting exercises to share decision making on how CAP Incentive funds are spent.



<p><b>5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis</b></p>	<p>Not all projects funded by CAP Incentives to date were explicitly desired or prioritized by community members, particularly as funding was distributed to projects eligible for Carl Moyer and Prop 1 funding in the first two years of the program while Community Steering Committees were being established.</p>
<p><b>6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.</b></p>	<p>Providing immediate air quality benefits is the primary goal of the program, and all CAP Incentive projects must meet this basic requirement.</p>
<p><b>7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities.</b></p>	<p>While CAP Incentives are intended to be used to address local air pollution, in limited instances they have funded natural gas infrastructure and hydrogen infrastructure projects. As of January 2023, the program does not fund natural gas infrastructure projects.</p>
<p><b>8. Advance health equity outcomes and at minimum, do not create more harm.</b></p>	<p>Air pollution reduction should yield health benefits; but similarly to other CCI investments, there currently are no mechanisms in place to demonstrate causal relationships between CAP incentive-funded activities and health outcomes at the local scale.</p>
<p><b>9. Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.</b></p>	<p>The CAP Incentives program guidelines say little about providing economic benefits to local communities beyond general job creation which is encouraged for all CCI programs.</p>
<p><b>10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.</b></p>	<p>CARB's Community Air Protection Incentives Project Dashboard provides a helpful foundation for creating transparency and accountability around how CAP Incentive dollars are spent. Additional improvements could make the dashboard even more helpful (e.g., information on particular projects funded by CAP Incentive dollars, entities receiving dollars, procedural equity metrics).</p>

## Recommendations

- **To CARB**

- Encourage air districts to share experiences with participatory budgeting with other districts, including strengths and challenges.
- Create a set of procedural equity metrics when it comes to how funding decisions for CAP Incentives have been determined, and the degree of community input involved (examples at bottom of case study).
- In template CAP Incentives guidelines for use by air districts, provide guidance on ways to create more local economic co-benefits using CAP Incentives dollars (e.g., requiring local and/or disadvantaged worker hiring for any capital projects funded by CAP Incentives; prioritizing funding for smaller or minority-owned businesses).
- In template CAP Incentives guidelines, require air districts to track the main funding recipient entity type (e.g., businesses, local governments, households) to better understand who is receiving these dollars.
- Encourage air districts to use a standardized template for maintaining data on what projects have been funded by CAP Incentives (template by Valley Air could serve as an example).
- Aggregate all data on CAP-Incentives funded projects and provide them on the Community Air Protection Incentives Project Dashboard<sup>364</sup> to increase transparency on how dollars have been spent; alternatively, provide links to individual air districts' project lists.

- **Legislature**

- Disallow use of any GGRF dollars on projects that support fossil fuel infrastructure or fund companies that produce fossil fuels.

## Equity Analysis

### EQUITY IN THE PROGRAM GOALS

#### Driving with equity

CARB established goals for the majority of CAP Incentives to be spent in Disadvantaged and low-income communities, ensuring that benefits would reach places with greatest needs. At least “70% of funds must be spent on projects within and benefitting DACs” and at least 80% “on projects within and benefitting a combination of DACs and low-income communities.” These goals were

established for FY 2017-2018 and continue today. Funding starting in FY 2018-2019 was also prioritized for use in designated AB 617 Communities and communities under consideration for future selection.<sup>365</sup> While there is no explicit race-conscious context in program materials and guidelines, goals to deliver funding to DACs helps ensure resources arrive in places with higher concentrations of people of color, particularly Black and Latinx individuals, who disproportionately reside in census tracts with high pollution burdens throughout California.<sup>366</sup> As of November 2022, 94% of AB 617 program funds have their funds landed in either a Disadvantaged or Low-Income Community.

## EQUITY IN THE PROGRAM PROCESSES

### Centering the agency of priority communities

In the context of utilizing incentive dollars, centering the agency of priority communities would mean that they have a seat at the table to decide what projects they want implemented in their neighborhoods. To utilize CAP Incentive funds, air districts oversee the process of soliciting projects, evaluating applications, selecting awards, and disbursing funds. Air districts must ensure that funded projects are reflective of community priorities and to demonstrate this, “...are required to submit documentation of their public process and associated project lists with each request for disbursement of funds.”<sup>367</sup>

While centering community priorities is core to the program, the degree to which community members and CSCs are, in practice, driving funding decisions for CAP Incentives seems mixed.

- From the Wilmington / Carson / West Long Beach site, a CSC member shared that their CSC went through a participatory budgeting exercise with the South Coast Air Quality Management District (SCAQMD) in 2021 to identify priorities for how to allocate CAP Incentive dollars across broad project types. The interviewee noted that this was a helpful and very positive experience that allowed community members on the ground to have some ownership and stakeholdership in AB 617 funding and how it was split up.
- From San Diego Portside, a CSC member noted that the San Diego County Air Pollution Control District (APCD) staff would present projects they selected for CAP Incentives funding to the CSC for feedback. While the CSC did not have the authority to select specific projects or veto any final decisions, they were able to provide feedback to the air district for consideration. The CSC member noted that one of the limitations with this feedback process was that there were instances where the CSC expressed a desire for projects that would provide more visible benefits for communities (for example, beyond the most commonly funded marine vessel project type) but were informed that the air district could only disburse funds towards the projects that applied for funding, and was having difficulty attracting

applications for the type of projects with more tangible community benefits that CSC members were seeking.

- From Eastern Coachella Valley (ECV), one CSC member who has been involved with AB 617 activities since CSC activities began in the area in 2020 noted that they were surprised that almost all of the CAP Incentives dollars spent in the community to date (\$25.5M as of November 2022<sup>368</sup>) had been spent on agricultural equipment upgrades instead of on other issues discussed in CSC meetings such as air pollution from the Salton Sea, pesticides, and dust suppression needs. The interviewee noted that this distribution of funding did not feel aligned with the intended goals established by the CSC, and that CSC members had not received information on how CAP Incentives had been spent in the ECV. They had only been involved in deciding how to use the community-identified project type (~\$4.57M used for a road paving project and \$1M for “home air filtration systems and air purifiers”) from Year 3 funds.<sup>369</sup> The interviewee expressed frustration that so much of the CAP Incentives in the ECV (\$25.5M) had been disbursed without community input while for Year 3 funds (~\$4.57M), the CSC had to make difficult decisions with a relatively smaller pool of funding; this meant that several desired projects (e.g., urban greening) could not make the cut given the limited pool of dollars. In contrast to this interviewee, a CSC member from the same location cited more positive experiences, noting that the CSC’s budget working group has been at the helm of deciding how to spend funding for “community identified projects” (Year 3) and that overall, AB 617 has contributed to the process of building community leadership and technical knowledge/capacity, as well more cohesion between local community organizations.

In the ECV experience, it is possible that the majority of the agricultural equipment funding was disbursed from Year 1 and Year 2 funds before the CSC had developed its CERP and engaged in participatory budgeting for community-identified projects.

From these experiences, we identified both hopeful, positive experiences with using participatory budgeting, to areas for improvement to ensure that CSCs are centered in directing all future CAP Incentive dollars towards priority projects.

## EQUITY IN THE PROGRAM OUTCOMES

### Reducing pollution burdens

Providing immediate air quality benefits is the primary goal of the program, and all CAP Incentive projects must meet this basic requirement.<sup>370</sup> It is estimated that these dollars have produced 707 tons of PM2.5 reduction, 16,817 tons of NOx reductions, and 1,346 tons of reactive organic gasses reductions throughout the State using GGRF dollars between 2018 and May 31, 2023.<sup>371</sup> While contributing to air pollution reduction, some environmental justice advocates we spoke with expressed frustration around the fundamental premise of the program which delivers financial

resources to polluters instead of directly mandating pollution reduction through regulation, which would free up limited climate dollars for other activities.

### **Creating health benefits**

Air pollution reduction should hypothetically yield health benefits. For all CCI-funded investments, a modeled, aggregate health benefits estimation is produced using estimated air pollutant reduction data from all programs.<sup>372</sup> While health benefits are the most important, long-term outcome that should be produced by AB 617, similarly to other CCI investments, there currently are no mechanisms in place to demonstrate causal relationships between CAP incentive-funded activities and health outcomes at the local scale.<sup>373</sup>

### **Facilitating wealth building and community wealth building opportunities**

We were not able to identify any aggregated reported data on the funding recipient type (e.g., businesses, local government, residents) for CAP Incentives. However, based on funded project types and eligibility criteria, and a review of projects selected to receive funding from air districts, we have seen that businesses are one of the main types of funding recipients. Some businesses may be based in DAC or low-income communities and may be creating economic benefits like local job creation. However, it's difficult to know whether these projects have produced direct economic benefits for residents without more information (e.g., whether local jobs were created; whether companies receiving CAP Incentives are local businesses; whether they are women-owned, minority-owned, disadvantaged businesses, small fleets). The CAP Incentives program guidelines say little about providing economic benefits to local communities beyond general job creation which is encouraged for all CCI programs. Dedicated efforts to integrate and ensure local economic benefits are produced from CAP Incentives would be helpful (e.g., local and/or disadvantaged worker hiring requirements for any capital projects funded by CAP Incentives; prioritizing funding for smaller or minority-owned businesses).

### **Reducing reliance on fossil fuels**

While CAP Incentives are intended to be used to address local air pollution, there have been instances in which funding has been used for fossil fuel-based infrastructure like natural gas or hydrogen fueling stations. As of January 2023, natural gas infrastructure has been removed as a project type that can be funded by CAP Incentives;<sup>374</sup> the information below refers to projects selected to be awarded before this time.

In aggregate, we identified close to \$35 million<sup>375</sup> for natural gas, “renewable natural gas,” and compressed natural gas infrastructure projects that were selected to be awarded CAP Incentives. These dollars were selected to be awarded by various air districts including the South Coast Air Quality Management District (SCAQMD),<sup>376</sup> the San Diego County Air Pollution Control District (SDAPCD),<sup>377</sup> and the San Joaquin Valley Air Pollution Control District (Valley Air).<sup>378</sup> In a few

instances, CAP Incentives funding was directly awarded to oil and gas companies such as San Diego Gas & Electric (SDG&E)<sup>379</sup> and Equilon Enterprises,<sup>380</sup> a subsidiary of Shell Oil Company.

Because there wasn't extensive detail available on the type of natural gas projects selected to be awarded CAP Incentives dollars, it is difficult to know the exact fuel source that may be supported by these projects. However, we know that conventional natural gas is a fossil fuel.<sup>381</sup> "Renewable natural gas" and its different forms as liquefied natural gas (LNG) or compressed natural gas (CNG) are produced by refining raw biogas, as well as other sources such as municipal solid waste from landfills.<sup>382</sup> Although CNG produces lower emissions than gasoline, the low energy density of CNG gives it a weaker fuel range that requires large fuel tanks to operate, which makes it marginally less GHG intensive than diesel fuel.<sup>383</sup> Because the prime component of "renewable natural gas" is methane, the entire process from extraction to transportation opens many doors for methane leakages into the atmosphere.<sup>384</sup> Overall, increasing and enhancing natural gas fueling stations is a signal that welcomes the continued production of fossil fuels or methane-derived biogas throughout the State.

Natural gas projects may represent a relatively small percentage of CAP Incentive-funded projects—estimated at approximately 6% of funded projects as of 2023.<sup>385</sup> Nevertheless, we believe that limited climate investments should not be spent on building out infrastructure that perpetuates fossil fuel use and support recent updates to remove natural gas infrastructure as a project type eligible for CAP Incentives funds.

## EQUITY THROUGH EVALUATION AND ACCOUNTABILITY

### Equity Metrics and Evaluation and Accountability

CARB's Community Air Protection Incentives Project Dashboard provides information on the broad types of projects that have been supported by CAP Incentives (e.g., on-road vehicles; agricultural vehicles).<sup>386</sup> It also shows how much funding has been spent over the years; where projects are located; and their air pollutant emissions impacts, among other data. This dashboard provides a helpful foundation for creating transparency and accountability around how CAP Incentive dollars are spent.

Additional improvements could make the dashboard even more helpful. For example, providing information on particular projects funded by CAP Incentive dollars—as well as the entities receiving these dollars—would allow communities to understand exactly how these dollars are being spent and on whom. These funded project lists are currently maintained by air districts and each approaches data collection differently. While most air districts have lists posted on their webpages, some only have selected years available online. The fact that these lists are not centralized make it difficult to holistically understand the types of entities that funding is reaching (e.g., businesses, households,

local governments). It also allows, in isolated incidents, funding to flow to problematic entities (e.g., oil and gas companies as discussed above) with little ability for clear public oversight.

Overall, when it comes to lists of projects funded by CAP Incentives, we found that the lists maintained by Valley Air were the most comprehensive, publicly accessible, and regularly maintained with project status details. These documents could serve as a template for other air districts and could be aggregated for display (or linked to the source) on the CAP Incentives Project Dashboard.

Lastly and importantly, more clear, aggregated information on procedural equity—how community members were involved in directing the use of CAP Incentives—would be helpful. A first step would be establishing clear metrics on the nature of community input involved to influence how CAP Incentive dollars were spent. Some examples are below:

- Indirect input via selection of project types identified as priorities in CERPs
- Direct engagement through participatory budgeting to allocate how funds should be spent across different project types
- Direct engagement through approval of projects selected by air districts
- Direct involvement through the development of a community identified project.

Publicly reporting on these metrics across all AB 617 sites would be helpful so that there is transparency and accountability around funding usage processes being truly community-driven.



# 9. Sustainable Agricultural Lands Conservation

## What is the Sustainable Agricultural Lands Conservation (SALC) Program ?

SALC was founded in 2015 by the CA Strategic Growth Council, and mirrors other climate incentives programs that aim to protect agriculture and farmland from urban development.<sup>387</sup> SALC program funds are primarily used to conserve agricultural lands in perpetuity through land trust agreements and fee title purchases. The program also sets aside funding for technical assistance and planning for these legally binding agreements, such as funding for organizations that do outreach and provide farm owners with guidance on these trusts. SALC was developed as a component of the Strategic Growth Council's Affordable Housing and Sustainable Communities Program to protect critical agricultural land in the state.<sup>388</sup>

### What Projects Did SALC Fund?

In its seven years of funding, SALC has awarded some \$300 million to fund land-easement agreements and planning for up to 194,000 acres of farmland.<sup>389</sup> Projects funded by the SALC program were typically at risk to four categories of market pressures including the risk of conversion to: 1) residential development, 2) high-density rural residential development, 3) low-density rural residential development, and 4) conversion to zoning minimums.<sup>390</sup> GHG emissions reductions are estimated by comparing a scenario in which development is carried out on these properties, and determining how much emissions were effectively averted by preventing development on that land.

Although SALC predominantly directs funds to agricultural landowners, the list of eligibility for most of the program is fairly broad, including municipal bodies such as cities, districts, and counties, as well

**Administering Agency:**  
**California Department of Conservation/  
California Strategic Growth Council**

**CCI Funding Allocated:**  
**\$358.7 million (2.31% of total CCI)**

**Dollars Implemented:**  
**\$90.2 million**

**Reported Implemented Dollars Benefiting  
Priority Populations:**  
**\$4.3 million (5%)**

**Estimated GHG emissions reductions**  
**10,881,864 MTCO<sub>2</sub>e (11.2% of total CCI)**  
**Cost per GHG emissions reductions (\$/  
MTCO<sub>2</sub>e)**  
**\$8**

**Years of Operation**  
**2015 – present**

\* as of November 30, 2022<sup>392</sup>

as nonprofit organizations, regional park or open-space authorities, and California Native American Tribes regardless of federal recognition.<sup>391</sup> The program has awarded over eight rounds of funding, accounting for some 10,881,864 MTCO<sub>2</sub>e of estimated GHG reductions.

### **How did the program fare in terms of equity?**

Our analysis of SALC shows funds from the program are struggling to fully benefit Priority Populations. According to CCI tabulations, 5% of total program dollars have benefited Priority Populations;<sup>393</sup> for the December 2021 – November 2022 reporting period, the share was 0%.<sup>394</sup> The primary economic beneficiary of the program is generally landowners who receive funds for the implementation of conservation easements. Through scoring criteria for applications, the SALC program does encourage the funding of projects that can demonstrate a benefit to a Disadvantaged Community; however, short-term benefits from this program received by surrounding communities are fairly limited.<sup>395</sup> Improvements should be made to ensure these benefits are identified and meaningful to neighboring communities, and that providing these benefits is a requirement for awarded projects.

Although conservation and protection of agricultural lands are important endeavors, other tools such as zoning regulations and other legal measures could also assist in these goals. This is particularly notable because SALC advocates we interviewed voiced a struggle to find willing landowners to participate in this program and secure easement agreements on these properties. Having to cover some costs associated with the easements or providing some match-funding was often cited as a significant barrier for farmland owners to enter easement agreements. However, SALC has made some notable advancements to expand awards to cover up to 90% of the conservation easement value, and will even provide 100% of funds for Tribal Nations or Tribal nonprofit applicants for example.<sup>396</sup> Overall, staff from the California Department of Conservation have made efforts to make the program more accessible to Socially Disadvantaged Farmers as well as Native communities, and these changes were also made in conjunction with the Strategic Growth Council's 2021 Racial Equity Action Plan.<sup>397</sup> Ultimately, farmland ownership continues to fundamentally shape access to SALC funding and benefits.

**Figure 29: Summary of Equity Analysis of Sustainable Agricultural Land Conservation using ECIPs**

<b>Equitable Climate Investment Principles</b>	<b>Sustainable Agricultural Lands Conservation (SALC)</b>
<b>1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities.</b>	Program has made improvements to include equity in goals and guidelines, but is not explicitly designed to direct significant benefits to EJ communities and Priority Populations.
<b>2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.</b>	SALC centers agricultural landowners and conservancy of these lands. Program staff have made efforts to center Tribal Nations and Priority Populations in program guidelines to open funding access and benefits to these communities.
<b>3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.</b>	SALC has made strides to make the program more accessible to Tribal Nations and Socially Disadvantaged Farmers. Has directed capacity grants and funds to organizations that connect farm land owners to easements.
<b>4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.</b>	Recent SALC funds have gone towards conservancy organizations to improve technical capacity and planning.
<b>5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis</b>	Demonstrated benefits to Priority Populations are not required for applicants to receive funds.
<b>6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.</b>	Program protects farm land from more intensive land use. However, SALC does not require recipients to implement more sustainable practices on these properties (e.g., reducing pesticide use).
<b>7. End the use of all fossil fuels without</b>	N/A

investing in transition strategies that perpetuate harms or cause new harms to EJ communities.	
<b>8. Advance health equity outcomes and at minimum, do not create more harm.</b>	N/A
<b>9. Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.</b>	The main economic beneficiaries from SALC are landowners. There is no aspect of the program that explicitly contributes to community wealth building, but there is some potential to advance land equity through the program.
<b>10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.</b>	SALC has made efforts to incorporate feedback from Socially Disadvantaged Farmers and Native communities to improve the program over the years.

## Recommendations

- **For SALC**
  - Require meaningfully-developed community benefits for approved projects
  - Look into Buy-Protect-Sell model and use it where appropriate to support land ownership opportunities for disadvantaged farmers
- **For future programs focused on land conservation**
  - Follow recent iterations of SALC that aim to minimize barriers to accessing these funds, focusing on Tribal Nations and Socially Disadvantaged Farmers and Ranchers
  - Increase requirements on awarded projects that translate to economic and health benefits for surrounding communities. Ensure that jobs on these properties mirror benefits and protections of high road jobs.

# Equity Analysis

## EQUITY IN THE PROGRAM GOALS

### Driving with equity

SALC aims to protect agricultural land use and does not provide funding for organizations outside of technical capacity and planning for these easements. Guidelines state programmatic goals include “advancing equity and opportunity for all regions of California.”<sup>398</sup> However, SALC guidelines also include nonprofit organizations and Native American Tribes as eligible recipients for some funding, regardless of federal recognition. Although we have seen some advancements in including Native territories and Socially Disadvantaged Farmers in the guidelines and eligibility of the program, more needs to be done to actually channel these funds towards those communities. SALC guidelines have a specific equity scoring criteria which prioritizes projects that demonstrate a benefit to a DAC or prioritize “Socially Disadvantaged Farmers and Ranchers,” but an analysis of awarded easement projects at the time of writing do not list any Native organizations and finding racial/ethnic demographics data on other grantees was also difficult.<sup>399</sup>

## EQUITY IN THE PROGRAM PROCESSES

### Minimizing burdens and barriers to utilizing resources

As illustrated by improved outreach to Tribal Nations and Socially Disadvantaged Farmers, SALC has made significant strides in recent rounds to minimize barriers in applying for these funds. SALC also includes up to 2% of award money towards “educational costs,” such as “trainings or meetings to improve the applicant’s skill, efficiency, or expertise in agricultural land conservation in order to complete the proposed project.”<sup>400</sup> However, according to our interviews with stakeholders, there are existing issues in the implementation of the program that make it difficult for Tribal Nations to enter these agreements, such as issues around information accessibility, eligibility requirements, and questions around sovereign land ownership or management. Until the most recent round which awarded projects up to 90% of the easement costs, SALC historically provided 75% of these costs, which also proved to be a financial barrier for farmers who were unable to secure capital costs for those agreements without these additional funds.<sup>401</sup> Interviewees voiced a challenge in finding willing applicants, and the Department of Conservation has sought to bolster technical capacity and planning segments of the SALC program to fund community-based organizations dedicated to conservation work and to better connect regional landowners with these resources.

## EQUITY IN THE PROGRAM OUTCOMES

### **Producing desired, multi-benefit outcomes**

Funding guidelines and point allocation from the solicitation process explain a preference for projects that provide benefits to surrounding communities. Some benefits include protection from flood risks, or economic benefits like internship, educational projects, and job opportunities. In addition to these benefits, projects can also claim foodway and food access benefits from their acquisition or planning proposals. From these rounds, awarded acquisitions have also provided food access to local communities and educational opportunities in the forms of farm tours or training. For example, the Cecchini Farm in Contra Costa County also provides a farm incubator program to “train new farmers, an afterschool program, and a farm program for special education students.”<sup>402</sup>

### **Facilitating wealth building and community wealth building opportunities**

With regards to wealth building and funding pathways, SALC only directs acquisition funds towards agricultural landowners for the purposes of land conservation. In cooperation with land easement partners, farm and grassland owners enter legal agreements that protect the agricultural land uses of these properties in perpetuity. The state provides up to 90% of funds for these legal agreements, and the final costs per agreement vary in connection to each project's acreage and price evaluations.<sup>403</sup> Once entering these easements, landowners forgo their rights to advance development or more intensive land-uses on those properties. As part of these agreements, some landowners provide food or educational opportunities to local communities that are considered co-benefits from these projects rather than some direct forms of community wealth building. Although there currently exists no framing for community wealth building under SALC, several interviews voiced some potential in the program to advance land ownership equity. This could potentially be accomplished by using the program as a vehicle to improve access to purchasing that land for traditionally excluded groups through something like a “Buy-Protect-Sell” strategy.<sup>404</sup> Although SALC does not fund the explicit purchases of properties, agricultural land that enters an easement may experience a substantial decrease in property value, thereby becoming more affordable while also being conserved in perpetuity.

Community-based conservation groups we spoke to also noted they had been approached by individuals who were interested in purchasing property using SALC, such as allocating program funds to purchase land and enter that property into an easement. The Department of Conservation acknowledged that there is some work being done on this front in conjunction with the state's Farm Equity Task Force, hoping to better address issues of land equity in the state through easements and acquisitions under SALC. The Department of Conservation noted that, “SALC can be a tool to get land into those community members' hands. By placing an easement on a property, you can reduce the purchase price of the property because you're removing the development rights which are a significant value on that land. So if you no longer can develop land, that, in theory, decreases the price

of that land.” However, incorporating this change to the program requires additional review by administering agencies, and this solution still relies fundamentally on finding existing landowners who are also willing to sell their properties for this exchange.

## EQUITY THROUGH EVALUATION AND ACCOUNTABILITY

### Accountability

SALC has made efforts to incorporate feedback from Socially Disadvantaged Farmers and Native communities to improve the program over the years. This is reflected in the improvement of program documents to better showcase eligibility, as well as the increase in match funding to expand the willing applicant pool. In these guidelines, administering agencies acknowledge “the historical violence, exploitation, dispossession and the attempted destruction of Tribal communities” from the early years of the state to present day. With regards to Socially Disadvantaged Farmers and Ranchers, SALC guidelines also acknowledge the impacts of prejudice in accessing farmland for communities of color and women. These guidelines also point out that “only 2 percent of California farmers are women of color” and “Socially Disadvantaged Farmers and Ranchers in California receive less in federal payments than their white counterparts and also earn less.” To better support these communities, administering agencies aim to award 20% of funding for technical capacity and planning grants for projects, and aim to have 5% of available funding for federally recognized or non-federally recognized California Native American Tribes.<sup>[405](#)</sup>



# 10. Dairy Digester Research and Development Program

## What is DDRDP?

The Dairy Digester Research and Development Program (DDRDP) funds the development of new dairy digester systems throughout the state. Anaerobic digesters (or dairy digesters) use manure or effluent from livestock to produce biogas which can then be used as an alternative to gas and diesel fuels. CARB estimates that the agricultural industry is the fifth largest source of the state's GHG emissions, with livestock accounting for over 70% of these emissions through the production of methane.<sup>406</sup> The California Department of Food and Agriculture (CDFA) funds digester projects as part of its broader methane and greenhouse gas reduction initiatives.

## What Projects Did DDRDP Fund?

Since its inception in 2015, the DDRDP has funded over 130 projects to create new covered manure lagoon methane digesters, or to retrofit existing digesters; these projects are primarily located in the Central Valley where the majority of California's dairy operations are located.

## How did the program fare in terms of equity

For many years, DDRDP and dairy digester technologies have faced opposition from local residents and environmental justice organizations. These groups have called out digester technologies as investments that entrench and perpetuate unhealthy livestock management practices which produce concentrated and unequal burdens in places—air pollution and malodors, extensive water use, and potential water pollution.<sup>410</sup> While DDRDP guidelines require projects to demonstrate that they will not produce any new harms,

**Administering Agency:**  
**California Department of Food and Agriculture (CDFA)**

**CCI Funding Allocated:**  
**\$195.3 million (1.26% of total CCI)**

**Dollars Implemented:**  
**\$195.3 million**

**Reported Implemented Dollars Benefiting Priority Populations:**  
**\$130.1 million (67%)**

**Estimated GHG emissions reductions**  
**21,023,794 MTCO<sub>2</sub>e (21.64% of total CCI)**

**Cost per GHG emissions reductions (\$/MTCO<sub>2</sub>e)**  
**\$9**

**Estimated jobs created**  
**902.8 (2021-2022)**

**Years of Operation**  
**2015 – present**  
\* as of November 30, 2022<sup>409</sup>

there is still ongoing community pushback against the program for entrenching the types of conditions described above, for the program’s potentially misleading GHG accounting approaches,<sup>411</sup> as well as the perception that despite being identified as “benefitting Priority Populations” these CCI-funded investments have produced little tangible benefits for local residents.<sup>412</sup>

**Figure 30: Summary of Equity Analysis of Dairy Digester Research and Development Program using ECIPs**

Equitable Climate Investment Principles	Dairy Digesters Development and Research Program
<b>1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities.</b>	DDRDP guidelines do not define equity, but the primary mission of the program is to reduce methane emissions. Program does not use race-conscious solutions, but by the nature of the program, directs funds towards regions most impacted by dairy-methane emissions.
<b>2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.</b>	EJ communities, Tribal Nations, and marginalized communities are not centered in DDRDP. Instead, the program prioritizes the voices of recipients and digester developers.
<b>3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.</b>	Program does not include mechanisms that ensure community access to DDRDP funds or co-benefits but some exist to prioritize projects for Socially Disadvantaged Farmers and Ranchers..
<b>4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.</b>	N/A
<b>5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis</b>	DDRDP maximizes benefits for recipients, which are dairy and ranching operation owners. Community benefits seem unrealized based on stakeholder interviews, and additional burdens are potentially

	stemming from DDRDP.
<b>6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.</b>	Dairy digester technologies are designed to reduce local pollution by reducing the methane emissions of dairy operations. However, community-based organizations have expressed that these technologies entrench and perpetuate unhealthy livestock management practices that concentrate environmental pollution in selected communities.
<b>7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities.</b>	DDRDP does not end the use of fossil fuels. DDRDP is an investment in biogas technologies.
<b>8. Advance health equity outcomes and at minimum, do not create more harm.</b>	N/A
<b>9. Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.</b>	DDRDP advances wealth building opportunities for dairy and ranching owners, not local communities or households. Jobs quality data is not publicly available.
<b>10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.</b>	Projects do not receive third-party evaluations, and concerns have been raised around community impacts from digester technologies.

## Recommendations

- **For CARB**
  - Defund program from CCI and reinvest in more equitable programs
  - Increase support for other programs in the agriculture sector (e.g., Alternative Manure Management Program (AMMP)) over DDRDP.

- **For future programs focused on alternative fuel production**
  - Properly account for all emissions and pollution that goes into alternative fuel production
  - Divest from technologies that are potentially contributing to pollution in regions already impacted by significant emissions

## Equity Analysis

### EQUITY IN PROGRAM GOALS

#### Driving with equity

As obligated by the Farmer Equity Act of 2017, DDRDP must prioritize applications from Socially Disadvantaged Farmers and Ranchers.<sup>413</sup><sup>414</sup> However, our review of DDRDP annual reports and documents listing project level data could not find how much program dollars are going towards Socially Disadvantaged Farmers and Ranchers nor how many awarded projects come from these applicants.<sup>415</sup> Our analysis and interviews with advocates also raised concerns that funds are primarily be going towards digester developers and dairy operations in the private sector, not necessarily towards community-identified needs or other equity-based benefits. Further, considering the potential negative externalities associated with digesters, several Central Valley EJ advocates we spoke with noted that the claim of “benefitting priority populations” by nature of the facilities being located in Disadvantaged or Low-Income Communities felt like a dishonest claim. It is important to note that the San Joaquin Valley houses predominantly Latinx and low-income communities which is a cause for concern given the evidence that shows industrial dairies may be contributing to significant environmental harm to those surrounding communities.<sup>416</sup> There has been significant pushback on the program, as illustrated by a petition signed by a coalition of environmental organizations in 2021 against CARB accusing state agencies of failing to fully account for the social costs of methane emissions, thereby potentially violating the Civil Rights Act of 1964 due to the disparate harm caused to these communities.<sup>417</sup>

### EQUITY IN THE PROGRAM PROCESSES

#### Centering the agency of priority communities

Our analysis of DDRDP showed the program does not primarily center the agency of priority communities, but is designed to respond to the voices of industry leaders, digester developers, and

dairy owners in addition to local resident stakeholders. In order to qualify for DDRDP funds, all applicants must include some evidence of community outreach or input on potential impacts to the local environment. For every funding application, community outreach or input on potential impacts to the local environment must occur up to one year prior to the application and must be held in those communities.<sup>418</sup> Further, CDFA has included these requirements of community consultations since the program's inception. CDFA archives these meetings and includes these files on the program website, logging these community outreach efforts as "stakeholder input" meetings with broad attendance rates that include a range of supporters and critics of these projects and technologies.<sup>419420</sup>

However, those interviewed for this report voiced that these workshops were not necessarily held to prioritize the needs of residents or to inform them about the potential risks associated with these projects. CDFA has acknowledged some challenges in reaching communities impacted by DDRDP, and have attempted to diversify their channels of communication as well as continue to hold workshops to better address community questions and concerns. Impacted residents do not have the explicit ability to veto the installation of a project.

## EQUITY IN THE PROGRAM OUTCOMES

### **Reducing reliance on fossil fuels and any harmful transition strategies**

CDFA states that DDRDP has contributed to significant GHG emission reductions in the state, and that digester projects can produce either electricity or generate renewable natural gas (RNG) from dairy cow manure, which can replace fossil fuels. However, environmental justice organizations and concerned residents have voiced concerns given that this fuel source may produce other harms on local communities, such as perpetuating unhealthy livestock management practices which cause air pollution and malodors, and potential water pollution.<sup>421</sup> As mentioned earlier, dairy digester projects must use CARB's quantification methodology and LCFS standards to calculate estimated reductions to greenhouse gas emissions from these operations and are also subject to California's Short-Lived Climate Pollutant Reduction Strategy (SB 1383).<sup>422</sup> However, due to the exclusion of a large percentage of methane emissions under current SB 1383 and LCFS calculations, digester projects may not be fully accounting for the harm being produced in surrounding areas by the dairy and ranching industries as well as digester projects.

DDRDP operates in conjunction with the state's broader short-lived climate pollutants reduction strategies and are subject to SB 1383 pollutant reduction targets that were set in 2016.<sup>423</sup> SB 1383 also required CARB and CDFA to establish methane reduction goals to be met by 2030.<sup>424</sup> To help reach these goals, DDRDP has served to reduce capital costs on these digester projects by using funds from CCI and by generating environmental credits through the Low Carbon Fuel Standard (LCFS) Program and the federal Renewable Fuel Standard (RFS) Program.<sup>425</sup> Methane management

projects and natural gas production from anaerobic digesters, such as those funded through DDRDP, are eligible for consideration under current LCFS regulations and can be counted towards these credits.<sup>426</sup> However, environmental justice groups have highlighted issues in the transparency of calculating these credits as well as issues with the quantification of benefits that may be inflating the GHG reductions and broader benefits from digester technologies.<sup>427</sup>

According to a coalition of environmental justice organizations including the Leadership Counsel for Justice and Accountability, Food and Water Watch, and the Association of Irrigated Residents, the LCFS may be failing to fully account for the harm from dairy and digester methane emissions since it does not fully account for methane emissions from crop production, intestinal emissions, animal feed production, emissions from the disposal and transportation of manure, as well as emissions produced from potential pipeline leaks.<sup>428,429</sup> Environmental justice organizations have argued that existing calculations through LCFS of methane emissions from the dairy and ranching industries fail to capture the full life-cycle of methane from this industry and potentially lead to inflated credits from cap-and-trade funding as well as inflated reductions estimates.<sup>430</sup> Therefore, dairy digester installations may allow polluters in the fossil fuel industry to offset their impacts by purchasing essentially double-counted credits generated from DDRDP dollars.

### **Reducing local pollution burdens**

According to CDFA, DDRDP and digester projects directly contribute to the reduction of local pollution burdens from dairy and ranching facilities, including improved air quality in surrounding communities via the reduction of methane, odors, and other air pollutants. However, according to environmental advocates and local residents, these projects have not necessarily translated into visibly improved pollution burdens. Further, there is some concern among these voices that DDRDP has incentivized some harmful practices from dairy farms and produced some negative externalities such as increasingly large herd sizes and the commodification of manure processing. This is because digester projects fundamentally depend on dairy operations and the massive manure lagoons where waste and cattle effluent is stored for processing into biogas. Environmental organizations have argued that state agencies have not been fully accounting for the harm from these farms and have not been transparent in providing data and documents to fully assess these potential externalities.

As mentioned above, some organizations have argued that DDRDP may be incentivizing the development of dairy operations and the growth of increasingly larger herd sizes.<sup>431</sup> According to an analysis of state data, dairies that received funding from DDRDP in 2017 and 2018 averaged 7,000 cows.<sup>432</sup> This is a cause for concern given that a dairy or ranching operation with a herd size of 2,000 cows “produces approximately the same amount of fecal waste as a city of one million people.”<sup>433</sup> In addition to the extensive odors from these lagoons, these large dairy operations also produce volatile organic compounds, ammonia, nitrogen oxides, and dust. These manure lagoons may break down over time, and if so, could degrade water quality by leaching waste into groundwater and drinking supplies, leading to nitrate contamination and exposure to other carcinogens.<sup>434</sup> When asked about whether DDRDP has produced visible benefits for communities, such as through improved air quality

and odors, Tom Frantz, a community advocate and resident of Shafter, noted, “It’s not benefiting the local community as claimed...basically I’m saying we’ve seen zero net improvements, we think, in any aspect.”

### **Facilitating wealth building and community wealth building opportunities**

There is little to no opportunity for community wealth-building via investments from DDRDP, and as mentioned above, private dairy operators and digester developers are the principal recipients of the funds. Advocates have also noted an overwhelming amount of funds often go to a very limited number of companies. A report showed that of awarded funds between 2015-2019 (nearly \$200 million) the bulk went exclusively to two digester developers, California Bioenergy LLC (CalBio) of Dallas, Texas and Maas Energy Works, Inc. (Maas Energy) of Redding, California.<sup>435</sup> With regards to jobs benefits, CDFA approximated that based on modeled data, approximately 4,379 full-time jobs have been supported by DDRDP investments (2,267 direct jobs, 643 indirect jobs, and 1,467 induced jobs).<sup>436</sup> However, it is unclear if these jobs are provided to residents from these local communities or how long the jobs lasted (construction phase only, versus sustained jobs).

### **Alternative Manure Management Program**

CCI jointly funds DDRDP with the Alternative Manure Management Program (AMMP) to address methane emissions and other environmental harm from dairy and livestock operations. The programs share \$289.1 million in funds allocated collectively between the two programs. However, AMMP funds non-digester projects that treat and manage manure such as drying, composting, or pasture-based management practices that are less water intensive.<sup>437</sup> The programs mirror aspects of one another in that both aim to advance manure management practices to reduce GHG emissions, and CDFA encourages the utilization of AAMP funding for these practices in all DDRDP projects funded. However, EJ groups perceive DDRDP as effectively commodifying manure production for the production of profitable biogas, and as a result exacerbating externalities associated with this practice. AMMP however, focuses on manure management practices such as converting a dairy operation’s current technologies to less water intensive alternatives. For this reason, EJ organizations and interviewees we spoke with have voiced a desire to increase support for AMMP over DDRDP.

## **EQUITY THROUGH ACCOUNTABILITY**

### **Accountability**

CDFA and other state agencies have made some improvements in incorporating critiques of digester technologies and industrial dairy operations, but there is significant work to be done in order to fully account for the potential harm produced by dairy farms in the state. Environmental justice organizations and impacted residents have identified the LCFS as being a possible venue for



producing equitable change in this sphere by accounting for the full life-cycle of methane production involved with industrial dairy and ranching industries. The California legislature has been holding public workshops and receiving public comments on potentially incorporating these changes to LCFS in 2024. With regards to the 2022 Draft Scoping Plan, impacted communities and advocates called on state agencies to reject proposals that increased dairy digesters in the state, urging CARB to “directly regulate emissions coming from these dairies to ensure our communities are protected and, at the same time, ensure the largest source of methane in California is directly reduced to prevent the worst impacts from climate change.”<sup>438</sup> Further, these groups and organizations have also urged state agencies to push for more transparency in identifying how DDRDP and digester technologies have impacted herd sizes in the state and the dairy and ranching industry as whole. However, analyzing data on herd size and other dairy practices are considered protected trade secrets under existing laws and out of the purview of stakeholders such as concerned environmental justice organizations.<sup>439</sup>



# FINDINGS: COMMUNITY CONVERSATIONS

As the saying goes, “all politics are local.” While CCI operates largely on a statewide level, its impact and final implementation happens at the local level. Environmental justice advocates are often made because of the highly localized impact of pollution on their communities—be it from refineries, unclean water, pesticide exposure, or any of the high number of other sources of pollution. All of this pollution is typically compounded by burdened communities having fewer financial and political resources to make change.<sup>440</sup> For these reasons, residents in places across California have come together and formed organizations to forge their own vision for their communities—to use the power of organizing and coalition building to reverse or mitigate the pollution that is affecting their well-being.

For a recent example of how local organizing can have a positive impact on CCI funding, we look to SCOPE and Trust South LA—two community-based organizations in South Los Angeles that explored how CCI dollars have been distributed across the City of Los Angeles in their 2017 report, “Climate Equity from the Grassroots.” South Los Angeles is a historically Black, now mixed Black and Latinx, mega-neighborhood with considerable environmental challenges—urban oil drilling, particulate matter from diesel trucking, a lack of greenspace, and more—that make it a prime candidate for CCI dollars.<sup>441</sup> The report’s quantitative analysis shows that “while Los Angeles was among the top recipients of GGRF funding, and some disadvantaged communities are seeing investments across various program areas, those South Los Angeles neighborhoods most in need of resources were left out.”<sup>442</sup> Since the writing of this report by and for community stakeholders, South LA has gone on to

win Transformative Climate Community (TCC) planning (2018) and implementation grants (2022), collectively worth over \$35 million.<sup>443</sup>

But not all communities will win TCC grants (despite immense needs), and not all communities have the existing capacity to write a report to show the State where funding is needed and could forge equity in their region. We wanted to know, then, the extent to which environmental justice communities are actually being impacted by CCI funding—straight from the communities themselves. As such, we started by looking at 16 regions across the state and did preliminary research to understand more about their environmental justice context, community capacity, history of CCI funding, and more. To narrow these 16 candidates down to three focus communities, we considered factors like geographic spread, power building capacity, and our own ability to connect with organizations in these places. Then, we spoke with a key stakeholder in the place to ask their thoughts on us doing a focus group with community stakeholders.

When all these factors lined up, we were able to move forward with a series of focus groups and interviews with community stakeholders in Oxnard, the Eastern Coachella Valley, and Richmond in April and May 2023. Together, these regions represent geographies from across California; and each area's population is comprised of at least 80% residents of Latinx, Black, Southeast Asian, and Indigenous backgrounds—many of whom are immigrants.<sup>444</sup> In aggregate, these communities have received over \$136 million of CCI funding.<sup>445</sup> In each location, we presented an overview of how CCI works, shared data on CCI funding in their area, and solicited community knowledge about local CCI projects. Through our conversations, we sought to understand community perspectives on CCI and its programs, the effects of CCI on community capacity and community power building, and the cumulative felt impact of CCI in that community.

After each conversation, we provided participating organizations with stipends, slide decks, and funding details of the community-specific CCI data for use in ongoing community power-building, and sometimes support after the engagement.

A subset of the CCI database was created for projects determined to be potentially located within Oxnard, Richmond, and Eastern Coachella Valley. We had already disaggregated the data (by location along with some of the quantifiable variables such as funding amounts) for the quantitative analysis section of the report. An extra step was done to assign all disaggregated cases a corresponding latitude and longitude based on census tract central points if coordinates didn't already exist. That was then used to map the location of the projects against place-based shapefiles for Oxnard and Richmond, and an Eastern Coachella Valley AB 617 shapefile provided on the California Air Resources Board website. Funding amounts were summed up across projects located within these three geographies based on the previously disaggregated dollar amounts, and additional detail on funding amounts by program types was made possible for sharing with community stakeholders.

As detailed below, these regions face a variety of local environmental challenges—including poor air quality caused by nearby industry, high pesticide exposure, low access to resilient physical infrastructure, and systemic issues of underrepresentation due to legacies of racism and xenophobia.

Our conversations illuminated several key findings of CCI funding in these regions: that CCI funding alone has not been enough to address local histories of systemic injustices and power imbalances, that the voices of communities of color and farmworkers have been marginalized in many CCI programs, and that CCI funding has not always matched community needs, and that many investments have not been aligned with community priorities. To address these challenges, the community stakeholders who we spoke with recommend that State agencies increase opportunities for community empowerment in funding decisions, and that CCI dollars are directed to stated community priorities.

Although we conducted conversations in Oxnard, the Eastern Coachella Valley, and Richmond for this report, it is important to note that there are many other communities in California that are also experiencing environmental injustice and deserve to have their voices heard by the State—either through direct outreach by the State itself, or through future efforts like this report.

# Oxnard

## BACKGROUND

Oxnard is the largest city in the Central Coast region, home to a largely working-class, immigrant community.<sup>446</sup> The city was incorporated in the early 20th century following the success of a sugar beet factory, which attracted many Chinese, Japanese, and Mexican workers to the region and established a strong agricultural foundation in the city.<sup>447</sup> Today, Oxnard is home to about 200,000 residents—87% of whom are people of color, with the vast majority being Latinx.<sup>448</sup> About 34% of residents of color in Oxnard have less than a high school education, compared to about 4% of non-Hispanic white residents. Additionally, reflecting the city's large immigrant population, about 13% of Oxnard residents live in linguistically isolated households, and about 18% of Oxnard residents are non-citizen adults aged 18 and above.<sup>449</sup>

***“A unique thing about Oxnard in terms of pollution is the proximity to oil and gas facilities as it relates to agricultural land. Oil wells are in the middle of our agricultural fields.”***

**—Haley Ehlers, CFROG**

The top industry in Oxnard is agriculture, forestry, fishing and hunting, and mining (employing about 10,800 full-time workers in 2021).<sup>450</sup> Beyond its roots in agriculture, Oxnard has been home to military bases in addition to electronic, aerospace, and other manufacturing industries. The California Environmental Protection Agency (CalEPA) ranks Oxnard in the top 20% of most environmentally burdened communities in the state, reflecting the dominance of the agricultural and oil industries in the city.<sup>451</sup> The city also houses an EPA-designated Superfund site, which contains about 750,000 cubic yards of waste from a former smelting plant.<sup>452</sup> Additionally, Oxnard is home to oil facilities, some of which are somewhat “hidden” on land that is also used as farmland. This, we heard in our conversation with community leaders, is something that blurs the impact of exposure to those who work in these fields, as well as those who live in neighboring communities.<sup>453</sup>

Due to the prevalence of agriculture in Oxnard—especially strawberry farming—the city is exposed to heavy use of chemical pesticides, which pose a public health problem to residents of the region.<sup>454</sup> According to a report by the Environmental Working Group (EWG), between 2015 and 2020, about 17 million pounds of pesticides had been sprayed within 2.5 miles of Oxnard, where about 208,000 people live, work, and go to school.<sup>455</sup> The fumigants used in strawberry farming have been linked to cancer, developmental problems, and damage to the ozone layer.<sup>456</sup> According to organizers in the area, constant exposure to pesticides and its resulting health consequences are issues that are top of mind for many.

From 2014 to 2017, Oxnard residents successfully mobilized against the establishment of a new gas plant in their community.<sup>457</sup> After NRG Energy won a contract to build a new power plant in Oxnard in

2014, the Central Coast Alliance United for a Sustainable Economy (CAUSE) helped mobilize residents to show up to hearings in opposition to the power plant. Despite residents winning the support of the City Council, the California Public Utilities Commission approved the contract in 2016, spurring another wave of opposition as city leaders fought against the new power plant. The decisive moment came in 2017, when 30 youth activists engaged in an act of civil disobedience, shutting down a California Energy Commission meeting in Oxnard and drawing attention from media and state senators alike. This action successfully canceled the creation of the power plant and remains a powerful example of community input and organizing.

## PERSPECTIVES ON CCI FUNDING IN OXNARD

Since 2013, Oxnard has received over \$36 million in CCI investments. Affordable Housing and Sustainable Communities brought in the highest amount of funding, at almost \$24 million, as seen in Figure 33. The Low Carbon Transit Operations Program came in next, with Oxnard receiving about \$6.2 million for transit services, purchasing EV buses and transit vehicles, and fare vouchers through the program. The region also received over \$1 million in CCI funding, each, in Clean Vehicle Rebates and Urban Greening. CCI funding went to an additional 15 programs in the Oxnard region.

**Figure 32: CCI Programs in Oxnard**

Programs Implemented in Oxnard	Implemented GGRF Dollars
Affordable Housing and Sustainable Communities Program	\$23,796,689
Low Carbon Transit Operations Program	\$6,245,280
Clean Vehicle Rebate Project	\$1,454,787
Urban Greening Program	\$1,200,000
Community Air Protection Incentives	\$914,290
Low-Carbon Economy Workforce	\$551,554
SB 1383 Local Assistance Grant Program	\$289,476
Urban and Community Forestry	\$276,048

Programs Implemented in Oxnard	Implemented GGRF Dollars
Food Waste Prevention and Rescue Grants	\$249,647
Clean Truck and Bus Vouchers (HVIP)	\$219,250
Wildfire Prevention Grants Program	\$196,436
Farmworker Housing	\$194,084
Community Air Grants	\$165,641
Multi-Family Energy Efficiency and Renewables	\$162,450
Clean Mobility Options	\$49,804
Financing Assistance for Lower-Income Consumers	\$25,000
Technical Assistance Program	\$21,461
Single-Family Energy Efficiency and Solar PV	\$12,993
Single-Family Solar Photovoltaics (PV)	\$3,859
<b>Total</b>	<b>\$36,028,749</b>

Source: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022).

Note: GGRF amount refers to the \$9.2 billion that is subject to investment minimums and excludes high-speed rail and admin.

### CCI projects in Oxnard are going unnoticed by some community leaders.

As seen in Figure 33, the vast majority of CCI funding in Oxnard comes from the Affordable Housing and Sustainable Communities Program, at over \$23 million of the total \$36 million Oxnard has received thus far. Another area that has received significant investment is public transit, which is a major community need. Community leaders expressed that the underfunded transit infrastructure remains an issue for many Oxnard residents, as Ventura County does not have a transit sales tax despite multiple attempts to establish one via the ballot box.<sup>458</sup> For several years, the community pushed for an Oxnard–Camarillo bus line, which was finally established in 2016 with the help of CCI funding. We heard from interviewees, however, that because the line did not have sustainable funding and ridership, they had to consolidate two lines which reduced some service. Local youth leaders who were organizing around this issue lived in South Oxnard and commuted to work in the Camarillo Outlets which is a major retail destination, and although the line goes to Camarillo it no longer stops there. So while this bus line provided some necessary service, it was later reduced, indicating that these one-off funding projects are not enduring solutions for larger infrastructure gaps. Multiple local leaders expressed a desire for a larger arc of work that will generate lasting infrastructure and



address the long history of disinvestment in the area, such as a City department dedicated to overseeing environmental justice and sustainability.

***"I'd like to see more community involvement, creating meetings where folks can really talk about what are some of the issues that they're dealing with or want to see addressed through these funds."—Daniel Gonzalez, Future Leaders of America***

Despite CCI funding landing in Oxnard over the last decade, local leaders found that the “felt impact” on their community was minimal. Interviewees shared that they were overall not aware of the CCI-funded projects in their neighborhoods. Many expressed curiosity about who the recipients of these funds have been and shared their skepticism about the impact of investments, such as the \$1.2 million investment in urban greening and whether it resulted in visible change for Oxnard at all. Finally, interviewees were concerned about whether the funding process included any loopholes—especially with regard to Community Air Grants—that would allow polluting industries to access and co-opt these funds.

***"Industries that are causing these emissions can take advantage of this program. What are the loopholes, right, that allow polluters to be the ones that use some of these funds and how do we close those? How can we prevent these industries from benefiting from these programs?"—Ana Rosa Rizo-Centino, Central Coast Climate Justice Network (CCCJN)***

### **Current investments in Oxnard appear to go towards identified issues in the region, but there are large issues that appear to be missing under CCI.**

While CCI funding up until 2023 does reflect the need for transit investments, community leaders expressed frustration that CCI fails to address another urgent environmental and public health concern in the area: pesticide exposure. As mentioned above, the large presence of agriculture in Oxnard generates high levels of pesticide usage and exposure in the area, with harmful, long-lasting consequences to farmworkers and residents. One organizer mentioned having experienced hives, itchiness, and eye irritation while working in the agricultural fields, and noted that there was a general lack of awareness among Oxnard residents regarding the full extent of pesticides’ effects on health. Local leaders are especially concerned about the community’s exposure to 1,3-dichloropropene (1,3-D), a fumigant that is linked to cancer along with other health issues.<sup>459</sup> Numerous homes and schools are located nearby agricultural fields using 1,3-D, putting many children and their families at risk of pesticide-related health conditions.

***"The biggest environmental issue that I see is that farmworkers are taken for granted in the way that they're treated with a huge lack of respect. With pesticides themselves, for example, there's one chemical right now that we're fighting against, the 1,3-D, where even with the State—there's different regulations on what they say is safe for farm workers to***

***be in contact with versus the rest of us, that it's safe for farm workers to endure 14 times the exposure of the rest of us."*—Ana Rosa Rizo-Centino, Central Coast Climate Justice Network (CCCJN)**

Local organizers noted that while CCI did fund some agricultural projects, none of this money appears to have gone towards the farmworkers who bear the brunt of pesticide exposure. Farmworkers put their health on the line every day for minimal pay, and many have to go to work while sick because they cannot afford to miss a day of work. Instead of subsidizing incentives for agricultural equipment such as tractors—which mainly benefit the interests of farm owners—organizers pointed out that CCI could instead fund incentives for farm owners to reduce their pesticide usage, which would then benefit farmworkers by reducing their level of exposure in the fields. Pesticide exposure and its consequences—for both farmworkers and community members at large—are matters of public health and environmental equity, and the local leaders we interviewed are calling for large environmentally-focused initiatives such as CCI to acknowledge and address these issues. Some advocates have also pushed for pesticide reduction (as well as organic farming activities) to be supported as GHG mitigation strategies under CCI.<sup>460</sup>

Several additional community needs remain unaddressed or under-addressed by CCI grants. Car accidents remain an ongoing issue, for example, especially in rural areas where traffic signs are unclear. Organizers mentioned a need for overall safer infrastructure for drivers, pedestrians, and bicyclists alike. Finally, they shared that another way to address pollution levels in the region is to provide more dedicated assistance to smaller, immigrant-owned trucking companies that would benefit from financial support in updating their vehicles to lower-emissions models. While some of these do not fall squarely within the primary objectives of CCI (e.g., traffic safety), they signal opportunities to better match climate investments to address both GHGs as well as high-priority community concerns.

Oxnard leaders acknowledge the level of investment in the region and would like to be more involved.

In accessing large governmental funding opportunities, there are often various hurdles in both the application and implementation processes. One organizer mentioned the time-consuming nature of grant application processes, coupled with the discouragement of previous denials, as deterring factors when looking at additional funding opportunities. Likewise, grant applications are often highly bureaucratic in nature, with detailed reporting requirements that may make the process less accessible to community-based organizations that need the funding but lack administrative capacity. Despite these hurdles, organizers expressed an interest in receiving future CCI funding and acknowledged that a broader coalitional effort in the region could contribute to more successful grant applications.

***"I feel like we haven't really worked together. I think there are probably places where we should have and maybe we would have been more effective at getting money for our***

*region...I can think of really clear examples where we could have worked together on applying for an air monitoring grant."*—Lucas Zucker, Central Coast Alliance United for a Sustainable Economy (CAUSE)

## RECOMMENDATIONS FROM OXNARD COMMUNITY CONVERSATIONS PARTICIPANTS

- To get a fuller picture of how CCI funding can best serve Oxnard residents, integrate more community input into the process.
- To promote a safer environment for all, invest in improving road infrastructure, especially in rural areas of the region, to prevent traffic accidents and create a safer environment for all residents.
- To improve local air quality and transportation access, continue funding efforts that promote greater focus on alternative modes of transportation, such as public transit, in the area.
- To improve public and environmental health, acknowledge and address the drastic impacts of pesticides on the health of community and the environment by taking actions to incentivize reduced pesticide usage in local agricultural operations.
- To improve local air quality, provide financial assistance to smaller trucking companies with updating their vehicles to produce fewer emissions.

# Richmond

## BACKGROUND

Richmond is located on the unceded ancestral lands of the Ohlone peoples. Between Spanish colonization and a state-sanctioned genocide during the Gold Rush, the Ohlone population was decimated by 1852—some of the Bay Area’s nearly 20,000 Indigenous residents today are the descendants of these original inhabitants.<sup>461</sup> At the turn of the 20th century, the end of the Santa Fe railroad was established in Richmond along with Standard Oil, land that is still operated by its descendent company Chevron. Many Pullman porters, who were often Black men, came to settle in the area.<sup>462</sup> Through the 1940s, considerable industrial development was pursued that took advantage of the railroad and port. World War II led to booming shipyards which came to employ white and African American workers migrating with their families, primarily from the American South. After the war, work became more scarce and underinvestment led to decline in the area that has often resulted in anti-Black actions and narratives about the city and its residents.<sup>463</sup> Starting in the 1980s, the Southeast Asian and Latinx population began to increase substantially.<sup>464</sup>

Today, the population is 82% people of color, Richmond is home to a large Black, Latinx, and Asian American community (with sizable Chinese, Filipino, and Laotian communities).<sup>465</sup> About 22% of Richmond residents live below 150% of the federal poverty level, and about 26% face severe rent burden—meaning that they are spending more than 50% of their income on housing costs. In terms of educational attainment, about 25% of Richmond residents of color aged 25 and above have less than a high school education, compared to 5% of non-Hispanic white Richmond residents.

***“Chevron is ‘impeding the process of creating a cleaner environment for residents.’”***  
**—Najari Smith, Rich City Rides**

Chevron is the elephant in every room in Richmond, one that houses a roughly 3,000-acre refinery within the city limits.<sup>466</sup> In addition to air pollution generated by its everyday operations, the refinery has seen a number of explosions, oil leaks, and flaring incidents that have had direct public health consequences for the local Richmond community.<sup>467</sup> Since 2016, the EPA has issued roughly 150 citations to the refinery for environmental violations.<sup>468</sup>

Beyond the refinery’s environmental impact on the city, Chevron also wields enormous political and economic influence over Richmond. The company is the city’s top employer, employing just over 3,200 Richmond residents as of 2021.<sup>469</sup> The City government is fiscally dependent on Chevron, whose property in 2021-22 made up 19% of the city’s assessed property value,<sup>470</sup> not to mention the other taxes that they pay to the City. Chevron also runs a local newspaper, The Richmond Standard,<sup>471</sup>

whose stated goals include providing information on the refinery and serving as “a voice for Chevron Products Company on civic issues.”

In 2012, the refinery—due to mismanagement of safety and facility maintenance was legally responsible for an explosion that led 15,000 Richmond residents to require respiratory-related medical care.<sup>472</sup> This incident inspired a generation of activists in the area to push back and fight for a better environment for their communities.<sup>473</sup> To quell protests against the refinery, Chevron has advocated for heightened police presence in the surrounding neighborhoods, which are largely home to Black, Latinx, and Southeast Asian residents. In 2014, Chevron spent nearly \$3 million in campaign contributions to the mayoral and city council elections in Richmond.<sup>474</sup> We heard in interviews that Chevron has been successful in winning seats.

Richmond’s key environmental challenges center around air pollution and emissions. A 2009 study found that Richmond has some of the highest levels of nickel and vanadium—which are associated with heavy oil combustion from refinery operations and marine shipping—in the state; the same study found that nearly half of all Richmond homes have indoor levels of PM<sub>2.5</sub> that exceeded statewide standards.<sup>475</sup> A CalEnviroScreen 4.0 map of asthma in Richmond shows that much of the City is in the highest level of burden (relative to the state).<sup>476</sup> Despite the passage of AB 617 in 2017—a bill aimed at reducing air pollution in Richmond and 14 other communities of color in California— little has changed for Richmond’s air quality. Advocates argue that the legislation has resulted in little more than bureaucracy—generating more paperwork and data collection, with no real accountability mechanism for actually reducing air pollution in the community.<sup>477</sup>

Richmond is also struggling with displacement pressures and a growing logistics industry.<sup>478</sup> Rising costs are impacting most of the San Francisco Bay Area, and Richmond is no different. One leader in the city noted that in Richmond, Black residents are being pushed out and are landing on the streets. In addition, North Richmond is being developed for warehouses and fulfillment centers, a growing logistics industry that is consistent with its history of industrialization. The trucks from this expansion, if not majority zero-emissions vehicles, will compound residents’ health problems and knock out any gains from climate investments. Moreover, North Richmond is a DUC—a Disadvantaged Unincorporated Community. It is not governed by the City of Richmond itself, but by Contra Costa County.<sup>479</sup> This means it can easily be overlooked. In North Richmond, Black and Brown people live directly across from heavy industry, and there have been displacement events.

## PERSPECTIVES ON CCI FUNDING IN RICHMOND

In Spring 2023, we shared quantitative data on CCI investments with leaders from the Asian Pacific Environmental Network (APEN), Rich City Rides, and Richmond Our Power Coalition. Figure 34 shows the allocation of CCI dollars to Richmond. Nearly \$9 million has come through Community Air Protection Incentives followed by Urban Greening projects which delivered about \$8 million through

projects like greening bicycle and pedestrian paths, increasing tree canopy along the Richmond Parkway, and engaging youth in skills and job training.

**Figure 33: CCI Programs in Richmond**

Programs Implemented in Richmond	Implemented GGRF Dollars
Community Air Protection Incentives	\$8,947,669
Urban Greening Program	\$8,114,025
Affordable Housing and Sustainable Communities Program	\$5,077,558
Community Air Grants	\$2,402,550
Clean Vehicle Rebate Project	\$2,081,871
Clean Mobility Options	\$2,048,857
Multi-Family Energy Efficiency and Renewables	\$1,904,425
Low Carbon Transit Operations Program	\$1,686,678
Urban and Community Forestry	\$1,337,226
Clean Truck and Bus Vouchers (HVIP)	\$868,235
Single-Family Energy Efficiency and Solar PV	\$673,127
Transit and Intercity Rail Capital Program	\$513,333
Clean Cars 4 All	\$496,981
Reuse Grant Program	\$494,800
Climate Change Adaptation and Coastal Resilience Planning	\$447,956
Clean Off Road Equipment Voucher Incentive Project	\$406,000
Food Waste Prevention and Rescue Grants	\$327,500
Financing Assistance for Lower-Income Consumers	\$315,963
Single-Family Solar Photovoltaics (PV)	\$302,675
Climate Ready Program	\$274,515
SB 1383 Local Assistance Grant Program	\$156,235
Technical Assistance Program	\$102,828

Programs Implemented in Richmond	Implemented GGRF Dollars
Training and Workforce Development Program	\$83,874
<b>Total</b>	<b>\$39,064,881</b>

Source: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022).

Note: GGRF amount refers to the \$9.2 billion that is subject to investment minimums and excludes high-speed rail and admin.

After Urban Greening, Affordable Housing and Sustainable Communities made up the third largest line item of CCI funding in Richmond, with about \$5 million going toward the construction of an 80-unit 100% affordable mixed-use development for seniors with household earnings at or below 30-45% of the Area Median Income (AMI). Over \$2 million was given in Clean Vehicle Rebates. As one of the communities covered by AB 617, Richmond has also received just over \$2.4 million in funding for Community Air Grants that has gone toward expanded air quality monitoring; vapor intrusion projects; community-based projects and organizations such as Communities for a Better Environment and CleanEarth4Kids; and educational, leadership, and workforce development programs related to air quality and monitoring.

Projects were funded in 18 other areas. About \$6.2 million in CCI funding was delivered through Low Carbon Transportation projects in Richmond—providing rebates and vouchers for clean light-duty passenger vehicles, trucks, and buses; and funding small-scale clean mobility projects. And although a smaller amount, the \$102,800 given in technical assistance dollars, in part, was particularly helpful in putting together a successful Transformative Climate Communities implementation grant application in 2022.

***“I didn’t know that that was actually happening, in part because the impact is not there.”***  
**—Katt Ramos, Richmond Our Power Coalition**

However, the majority of the funding was little known in Richmond among environmental justice stakeholders. In Spring of 2023, we interviewed stakeholders who had some familiarity with the greening funds, AB 617 funds, some transit funds, and Transformative Climate Community-related funding. They didn’t know about a lot of the funding, one remarked, because they weren’t seeing impact.

### **The environmental justice ecosystem is critical to equitable implementation.**

The stakeholders spoke to the \$35 million in TCC implementation funding, which will “focus on neighborhood complete streets, the Richmond Wellness Trail, an e-bike lending library, community



gardening, healthy food, and food security, renewable energy in homes, and reduction of water waste.”<sup>480</sup> The partnership of organizations who are receiving this money call themselves Richmond Rising and includes Rich City Rides, Urban Tilth, the City of Richmond, the Trust for Public Land, GRID Alternatives, and Groundwork Richmond. The City had tried to capture these funds in the past, but it wasn’t until they worked with neighborhood groups that they won the dollars. The coalition is currently preparing to implement these dollars.

### **CCI dollars may be helpful, but the scale of need is high in the face of systemic racial injustices.**

Aside from TCC, stakeholders are wary of how programs that support building weatherization might induce displacement by landlords accepting the dollars and then evicting tenants in order to do the work, a phenomenon that has come to be known as “renoviction.”<sup>481</sup> They also noted the funding going towards housing and added that there is a mismatch between the funding available and the need. Given Richmond’s legacy of industry, they need money for remediating the land, first, before they can create more housing. As far as we could tell, some remediation dollars are available through TCC and the Affordable Housing Sustainable Communities program (AHSC)—although there are some restrictions on its use.<sup>482</sup>

One stakeholder pointed out that most of this money is going towards community development, while Richmond is still suffering under major racialized, systemic challenges related to capitalism. The broader context is knocking out the benefits of some of these community development gains—that are appreciated—but they don’t come close to the scale that’s needed. They noted how often electric vehicles are lifted up as a solution, but that in Richmond it’s a false promise: the scale of development coming via the logistics expansion will knock out any air quality gains from EVs. Moreover, Chevron continues to hold so much power over the future of the City that it limits community agency.

***“So while we’re doing a really great job of the local, it’s these interstate vehicles that we need to actually start targeting and changing the policies around because, even if we have a really wonderful and robust local EV program, the interstate impact is just going to knock out any positive impact on our air quality.” —Katt Ramos, Richmond Our Power Coalition***

### **State dollars should not fund the fossil fuel industry in Richmond (or elsewhere).**

With regard to Chevron, we heard a couple of themes. One, that no money should go to them whatsoever. This nearly happened in an TCC application process. “They cannot be part of the entities of the fossil fuel industry. They cannot be carbon capture or sequestration or all these false solution pieces that end up getting funding through these large buckets of money,” said Katt Ramos of Richmond Our Power Coalition. Stakeholders also balk at switching from oil to hydrogen, which has its own downsides. Stakeholders wanted support for the community to come up with its own vision for a post-Chevron Richmond because they want it closed and because if Chevron left, that would leave an

economic hole. What is the economy that they want? What would be done with the land? What is an alternative worldview that holds to just transition principles?

## **RECOMMENDATIONS FROM RICHMOND COMMUNITY CONVERSATIONS PARTICIPANTS:**

- To make the CCI funding opportunities known and to support Richmond's self-determination, prioritize deeper community engagement, especially in-language and in-culture.
- To improve the community health of Richmond, do not fund the Chevron refinery in any way and provide funding for residents to imagine and work towards a post-Chevron Richmond.
- To close historical equity gaps, support land remediation and funding to the Disadvantaged Unincorporated Community (DUC) of North Richmond, and to close future equity gaps, support work to decarbonize the growing warehousing and logistics hub.
- To improve mobility, affordability, and transition off fossil fuels, continue funding low carbon transportation programs including city bikes, eBikes, subsidized transit passes, and improvements to bike paths and sidewalks.
- To support organizations accessing, winning, and successfully implementing CCI funds, improve processes by being clear ahead of time about timelines and what is needed by the State, decreasing reporting burden, giving funding upfront instead of reimbursing it, and supporting expanded community capacity.

# Eastern Coachella Valley

## BACKGROUND

The Eastern Coachella Valley (ECV) lies in Riverside County in southeastern California. According to CARB and local community advocates and organizers, the region encompasses the municipalities of Indio and Coachella; the unincorporated communities of Thermal, Oasis, Mecca, and North Shore; and the Tribal lands of the Cahuilla People.<sup>483</sup>

The lands of this region are the unceded ancestral homes of the Cahuilla People, who today comprise nine Tribal Nations throughout the valley and surrounding mountains.<sup>484</sup> As the area was colonized by white settlers in the early to mid-1900s, it became one of California's earliest agricultural centers, with the Salton Sea as its anchor.<sup>485</sup> Latinx immigrants moved to the area in large numbers throughout the 20th century, as various state and federal programs like the Bracero Program facilitated the mass hiring of immigrant farmworkers throughout California.<sup>486</sup>

Today, people of color comprise 84% of the residents of the ECV—the vast majority of whom are Latinx or Indigenous, and many of whom are part of immigrant communities from Mexico.<sup>487</sup> In the ECV, 46% of households are considered to be linguistically isolated, and 18% are non-citizen adults—both among the highest rates in the state.<sup>488</sup> Many, like the approximately 5,000 Purépecha people who live in the ECV, possess intersectional identities as Indigenous immigrants who may not speak Spanish or English.<sup>489</sup> Many of these immigrant communities are also farmworker communities, whose labor enables a booming agricultural economy to exist in the middle of the Mojave Desert.<sup>490</sup>

However, the wealth generated by the agricultural industry is not reflected in the economic conditions of ECV workers, as 29% of ECV households are living below 150% of the federal poverty level and 13% of residents are unemployed.<sup>491</sup> These numbers lie in stark contrast to the wealthier and whiter communities of the rest of the Coachella Valley, including the city of Palm Springs, where tourism reigns supreme.<sup>492</sup> Instead of benefiting materially from the agricultural industry, ECV residents are subjected to environmental pollution and a lack of basic infrastructure, stemming from a long history of disinvestment in the non-agricultural sectors of the region and the exploitation of both Latinx labor and Tribal lands.<sup>493</sup> Pollution in the region stems largely from three major sources: the drying of the Salton Sea, the continued use of agricultural pesticides, and dump sites in the region.<sup>494</sup>

The Salton Sea, which lies at the southeastern edge of the Eastern Coachella Valley, is an artificial lake created by the breaching of agricultural canals in 1905. The Sea quickly became the anchor that sustained a booming agricultural industry in southeastern California, an oasis in the middle of the Mojave Desert.<sup>495</sup> However, the artificiality of the sea means that it is entirely dependent on the inflow of water from agricultural canals—and all of the agricultural waste and toxins that come with it—to

sustain its water levels. Through a combination of water diversions and drought, the Salton Sea has been quickly shrinking over the past few decades—and exposing the toxic dust on the former lakebed to the lungs of ECV residents via the gale-force winds of the high desert.<sup>496</sup> While researchers and policymakers have largely focused on the health effects of desiccation on the opposite end of the Sea in the Imperial Valley, it still has massive health and economic implications for the ECV as well—especially as nascent lithium production in the region to support global EV growth has direct implications on the Sea and local air quality.<sup>497</sup>

The local agricultural industry has historically been sustained by both the Salton Sea and the use of pesticides in the fields. Indeed, more pesticides are used today in census tracts in the ECV than in 95% of other California census tracts.<sup>498</sup> This has particularly adverse effects on the health and working conditions of farmworkers, who are breathing in these toxic chemicals every day on the job, but also the respiratory health of all ECV residents who live downwind from the fields. In addition to pesticides exposure, these immigrant farmworkers are also constantly exposed to extreme heat and the air pollution from the Salton Sea and the dump sites all while facing labor rights violations and barriers to organizing for improved working conditions.

Pollution from dump sites is yet another issue facing residents of the ECV. There are numerous regulated dump sites in the region, according to CalEnviroScreen, concentrated mostly in the unincorporated areas outside of Indio and Coachella. These numbers make the ECV home to one of the highest concentrations of dumping sites in the state—and these numbers don't even include the unregulated and illegal dump sites in the region that are virtually impossible to count.<sup>499</sup> In particular, the Torres Martinez reservation has long been a place where externally produced waste—including human excrement from San Diego, debris from the 1994 Northridge earthquake, and clippings from Palm Springs golf courses—is illegally disposed of on Tribal lands, all but forgotten in the eyes of the state but unavoidable to local residents (and outside the jurisdiction of SCAQMD).<sup>500</sup> When these sometimes literal mountains of waste are burned intentionally, or unintentionally in the case of the notorious Lawson Dump, it causes massive amounts of air pollution throughout the ECV.<sup>501</sup>

These factors—the disappearance of the Salton Sea, the continued use of agricultural pesticides, and the dump sites—have combined to make the Eastern Coachella Valley one of the most polluted places in California.<sup>502</sup> To add to the burden, residents must face these challenges while also enduring a severe lack of physical infrastructure like affordable housing, clean water connections, and reliable sewage systems—particularly in the unincorporated areas. Due to a lack of affordable housing, most farmworkers residing in the ECV live in mobile home parks, which are often unregulated and face a slew of physical infrastructure issues.<sup>503</sup> The resilience of local infrastructure and housing will continue to be tested as climate change leads to more extreme weather events like heat waves, sandstorms, and flooding—events that are already happening here and causing uncertainty and upheaval in the lives of ECV residents.

## PERSPECTIVES ON CCI FUNDING IN ECV

### How has CCI done in addressing these stacking environmental issues in the ECV over the past decade?

According to our analysis of CCI allocations, nearly \$65 million of CCI funding has been implemented in the Eastern Coachella Valley between 2013 and November 2022—less than 1% of all CCI funding, even when excluding the costly High Speed Rail program. Nearly \$26 million has come from the Community Air Protection Incentives program for less-polluting agricultural equipment; nearly \$15 million has been directed to the ECV from the Affordable Housing and Sustainable Communities program for affordable housing units, urban greening and new sidewalks; over \$7 million has been received from the Urban Greening Program for parks, bike lanes, and green street corridors; and \$5 million has come from the Transit and Intercity Rail Capital Program for zero-emission buses and vanpools. The remaining \$11 million or so has gone to projects under 18 additional CCI programs. In our Community Conversations with community advocates and organizers from the Eastern Coachella Valley, participants expressed several concerns about the way that these dollars have manifested in the region over the past decade.

**Figure 34: CCI Programs in Eastern Coachella Valley**

Programs Implemented in Eastern Coachella Valley	Implemented GGRF Dollars
Community Air Protection Incentives	\$25,509,677
Affordable Housing and Sustainable Communities Program	\$14,895,908
Urban Greening Program	\$7,368,861
Transit and Intercity Rail Capital Program	\$5,018,167
Safe and Affordable Drinking Water Fund	\$2,691,829
Food Production Investment Program	\$2,232,584
Single-Family Solar Photovoltaics (PV)	\$1,359,166
Farmworker Housing	\$1,143,557
Clean Mobility Options	\$1,043,300
Clean Truck and Bus Vouchers (HVIP)	\$936,000
Low Carbon Transit Operations Program	\$828,394
Community Air Grants	\$562,053
Single-Family Energy Efficiency and Solar PV	\$250,987
Food Waste Prevention and Rescue Grants	\$250,000

Programs Implemented in Eastern Coachella Valley	Implemented GGRF Dollars
Transformative Climate Communities (Community)	\$200,000
SB 1383 Local Assistance Grant Program	\$189,573
Clean Vehicle Rebate Project	\$160,750
State Water Efficiency and Enhancement Program	\$152,786
Technical Assistance Program	\$78,182
Training and Workforce Development Program	\$26,424
Clean Cars 4 All	\$12,000
Financing Assistance for Lower-Income Consumers	\$5,000
<b>Total</b>	<b>\$64,915,197</b>

Source: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022).

Note: GGRF amount refers to the \$9.2 billion that is subject to investment minimums and excludes high-speed rail and admin.

### **Entrenched power players in the region have dominated CCI funding in the region.**

Overall, there was a shared sentiment amongst our interviewees that entrenched power holders in the ECV, whether cities or industries, have dominated CCI funding allocations and dollars in the region. As the only two incorporated places in the region, the cities of Indio and Coachella dominate the regional power structure, according to local stakeholders. While not immune to the environmental issues that plague the region, these places do have a more resilient physical infrastructure and more administrative capacity to attract outside funding support. Indeed, much of the CCI funding that has gone to the region has been allocated to organizations and agencies in these cities. This has been viewed by local stakeholders as being to the detriment and deprioritization of the unincorporated communities and Tribal Nations of the region. These communities typically have access to relatively fewer resources to successfully apply for funding, which contributes to maintaining the inequitable resource distribution found in the ECV.

Of the CCI funding to go to the ECV, over \$25 million has come from Community Air Protection (CAP) Incentives, mainly for the purchase of less-polluting agricultural equipment like tractors and sprayers. This was something that raised alarms for the ECV community residents and advocates with whom we spoke. CAP Incentives are funds created to support AB 617 activities which focuses on implementing community-driven air quality solutions in some of the state's most heavily polluted places, including in the ECV. While the spirit of AB 617 strongly emphasizes community voices, we found through our conversations that in the ECV, members of the local AB 617 Community Steering Community had little input on how the \$25 million dollars for CAP Incentives had been spent to date. Interviewees were dismayed that the majority of these limited dollars were given to subsidize agricultural equipment purchases while providing little visible benefits to residents and no

confirmation that air quality had tangibly improved as a result. This was discussed further in the CAP Incentives case study in Chapter 6-9 of this report.

Local advocates also expressed concern that funding like the Climate Smart Agriculture program is overly focused on statewide GHG emissions reduction goals, and serves to benefit entrenched agricultural power players in the region instead of the lower-income, largely immigrant farmworkers who form the backbone of the industry.

**As a result of community voices not being centered in local environmental discussions, community priorities are not being met through CCI funding. As a result, there is a sense among local stakeholders that CCI has not made a tangible difference in the environmental issues or living conditions in the ECV.**

There was a prevailing sense among our participants that while there has been some beneficial funding from CCI, most of it has not gone to stated community priorities—or even meaningfully considered or solicited community desires in their processes. As a result, local stakeholders do not feel heard by CCI—and expressed in our interviews that “these decisions are being made without their voices being heard” while “not centering on the needs and priorities of the actual communities that it’s intended to protect.” The issues mentioned by our participants as community priorities mirror those mentioned above—the lack of basic environmental infrastructure in the built environment, outdoor working conditions for farmworkers, and air quality issues. Our participants feel that CCI dollars have not made much, if any, impact on addressing these concerns.

Despite being an AB 617 Community Air Protection Community,<sup>504</sup> participants report that community air quality priorities have not been reflected in the Community Air Monitoring Plan—instead, CARB and local elected officials have more sway over the agenda. Participants report that the local AB 617 structure was not as participatory as they had hoped, with one saying that “we were not able to have the structure that we want it to, so that we could ensure that there would be more [Spanish], more community feedback directly.”

There has also been CCI funding for clean transportation and electric vehicle purchasing in the ECV in attempts to address the air quality issues, but these resources are inaccessible to farmworkers and low-income communities due to high costs and a lack of physical infrastructure like charging stations. Our participants also stated that the CCI funding geared towards infrastructure has not really made a meaningful impact on climate resilience in unincorporated areas—again, because these funds have mostly gone to incorporated areas. Such resources were also highlighted as being inaccessible to residents due to information, income, and language barriers.

In particular, our participants shared concerns that CCI funding, while pouring millions of dollars into reducing GHG emissions from the agricultural sector, has done little to address farmworkers’ working conditions. According to our conversations, the community would like climate investments to focus on farmworker labor issues like poor working conditions caused by exposure to pesticides and extreme heat with little access to water. Instead, CCI funding has focused on GHG reductions and



increasing farm productivity, without consulting farmworkers themselves. As Yunuen Ibarra, a staff member of the Líderes Campesinas farmworker advocacy group stated, “It doesn’t make sense to make sure that the way that the food is being planted is the best when the workers, the people working the land, are not being taken into consideration...how are these things being done, but not including farmworkers?” In short, the rights and concerns of the local farmworker community are being ignored in favor of achieving external goals that provide little to no direct benefits to improve local workers’ quality of life.

**The CCI projects that have been more community-driven and community-involved have been more successful in benefiting the community and making a tangible difference.**

CCI programs, by their nature, are top-down in their implementation: State agencies create programs and fund projects in response to State mandates to curb greenhouse gas emissions. However, this approach has largely failed to make an impact on the lived experiences of ECV residents. Those projects that our participants highlighted as making a positive impact have been those that are more community-driven and bottom-up in nature. Participants highlighted the \$170,000 Transformative Climate Communities (TCC) planning grant received by the Coachella Valley Association of Governments (headquartered in Palm Desert, and so not captured in our quantitative dataset for the ECV) and the \$200,000 planning grant received by the City of Indio in 2018<sup>505</sup> as together having the potential to create transformative change in housing, transportation, labor rights, and air quality for the entire region. Participants noted that community participation and the depth of local knowledge of climate resilience has increased as a result of unsuccessful TCC implementation grant applications in 2021 by the Coachella and Indio projects—that residents have been able to build a narrative around climate resources, equity, and meaningful investments.

The Urban Greening program has also resulted in positive community benefits, most notably a new park in North Shore. As a quite geographically isolated Disadvantaged Unincorporated Community, North Shore has relatively fewer environmental amenities to support its residents. The park that resulted from the Urban Greening program was advocated for and co-designed by the community in order to close this gap of green space access. The project also required collaboration across different types of entities in the public and private sectors, which built relationships that could be used for further development. The \$1.56 million from the Safe and Affordable Drinking Water Fund—which aims to ensure safe, accessible, and affordable drinking water to receiving communities—was also noted by participants as having a positive impact, since affordable housing and public facilities have received access to clean drinking water after many years of not having it.

## RECOMMENDATIONS FROM ECV COMMUNITY CONVERSATIONS PARTICIPANTS

- To increase procedural equity, CCI programs should center the stated needs of low-income, Latinx, Indigenous, and farmworker communities in adaptation, planning, and funding processes in the ECV—instead of centering those with existing power in the region.
- To increase access to basic environmental resources and improve resilience against climate change in the ECV, CCI programs should invest more heavily in infrastructure and improvements to the built environment.
- To address the issues of poor air quality and pollution-related health issues prevalent in the ECV, CCI programs should further invest in disincentivizing the use of pesticides, ensuring better health protections for farmworkers, and mitigating the desiccation of the Salton Sea.
- To address the relative lack of access to climate resources for residents of the ECV, CCI programs should further invest in projects like improving access to shade and green space.
- To address intersectional inequities, CCI programs should work to further housing justice in the ECV, especially for farmworkers and residents of Disadvantaged Unincorporated Communities.

# MAKING THE MARK ON EQUITY? AN ANALYSIS OF CALIFORNIA CLIMATE INVESTMENTS

As mentioned earlier in this report, we formed a set of Equitable Climate Investment Principles (ECIPs) to help us identify how CCI is creating climate investments in an equitable way that reaches the communities most burdened by environmental injustices. Our findings are broadly summarized in the table below.

**Figure 35: Summary of Equity Analysis of CCI based on Equitable Climate Investment Principles**

Equitable Climate Investment Principle	How CCI is embodying each principle
<b>1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities.</b>	CCI's distributional equity guidelines were created, in large part, due to advocates organizing to ensure GGRF dollars reach communities most impacted by pollution. Our analysis indicates that these dollars are reaching communities of color, even if through an indirect approach. How individual programs are fulfilling this principle is varied and less easily known.
<b>2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as</b>	Throughout many CCI programs, there are dedicated efforts to integrate community voice, needs, and decision-making. However, given the fragmented nature of CCI programs, community members are not able to cohesively leverage funding from multiple parts of the initiative towards a community-identified vision.

<b>Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.</b>	Additionally, there is still room for improvement as CCI works to engage more Tribal Nations and DUCs.
<b>3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.</b>	Ease of use and accessibility vary widely across programs. While there are some that are specifically intended to be accessible, there are some with extensive requirements that call for applicants from DACs to invest extensive resources into simply applying. Technical assistance has been useful in these instances though it could be expanded and strengthened.
<b>4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power.</b>	CCI programs have been made more equitable from community organizing and advocacy efforts—mobilizing to pass SB535 and AB1550, fighting for good programs to remain funded, and implementing CCI funding in a way that matches community needs, for example. In order to ensure future climate investments are implemented equitably, the State and philanthropy need to support capacity building and organizing for local organizations.
<b>5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis</b>	CCI programs are largely delivering helpful investments that are desired by organizations and EJ leaders, and in some cases have produced additional positive outcomes such as lasting relationships between stakeholders that spur continued collaboration beyond CCI. However, there are some programs that are exceptions to this; and the definition of "benefits" is broad and does not currently consider potential harms introduced by programs.
<b>6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.</b>	While decreasing pollution is not a co-equal goal of CCI, the initiative's programs have resulted in co-pollutant reductions. We heard from EJ leaders that more could be done to move from (necessary) air monitoring to more measurable reductions in toxic emissions, increased water infrastructure in DUCs, and more attention to the effects of pesticide usage.
<b>7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities.</b>	CCI does not have an explicit requirement to steer away from fossil fuel projects or potentially harmful energy transition strategies. Given our findings and data made available by CARB, projects that rely on methane digester infrastructure, natural gas fueling infrastructure, and hydrogen fueling infrastructure are of particular concern. More transparent data could reveal other potential harms.

<b>8. Advance health equity outcomes and at minimum, do not create more harm.</b>	<p>CCI encourages agencies and funding recipients to promote health as a co-benefit—and this is likely true of many program outcomes—though it is difficult to determine the true health impacts of individual programs.</p>
<b>9. Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.</b>	<p>A goal of CCI is to produce economic co-benefits such as job creation and it has funded some important just transition jobs programs, but the quality of these jobs are unknown. Additionally, there is no explicit emphasis on wealth building, community wealth building, or closing the racial wealth gap. There is also a lack of data on the economic beneficiaries of CCI, and uneven attention paid to the potential for displacement.</p>
<b>10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.</b>	<p>CARB regularly conducts extensive data tracking to report on program outputs and assesses if benefits are landing in Priority Populations. More attention on understanding how CCI is actually <i>impacting</i> communities (e.g., visibility of investments, felt impact on quality of life) would be helpful, in addition to making more concerted efforts to track equity metrics focused on race.</p>

## Equity in CCI Goals

### 1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities

As discussed earlier, environmental justice stakeholders were opposed to establishing cap-and-trade as one of the primary mechanisms through which to address AB 32. Driving equity from the start would have looked like a regulatory scheme that did not leave pollution reduction in the hands of the market—a main criticism from EJ partners—and that did not lead to, by some measures, more concentrated carbon emissions and its attendant co-pollutants in EJ communities.<sup>506</sup> Regardless, cap-and-trade and CCI were formed, and to its credit there are elements of CCI that promote equity and center race-conscious solutions to address histories of disparities. When it comes to driving with equity, key pieces of legislation such as SB 535 and AB 1550 have contributed to creating clear equity goals for the initiative. Additionally, using the CalEnviroScreen (CES) to determine Priority Populations for this funding helps the initiative reach communities most burdened by histories of racism and environmental hazards—though EJ partners shared some continued concerns that highlight the ways that CCI can go further in accomplishing this principle.

## Drive with equity

CCI guidelines do not explicitly define equity within the initiative. Instead, one of the primary mechanisms through which CCI furthers equity is through its requirements for the use of funds: SB 535 and AB 1550 require a minimum of 25% of CCI funding benefit those most heavily affected by pollution (and simultaneously least able to bear these burdens), with an additional minimum of 5% for low-income communities and households and 5% for low-income communities and households within a half-mile “buffer zone” of Disadvantaged Communities.<sup>507</sup> These targets apply to the funding implemented by the CCI portfolio of programs, in aggregate. Each individual program may have different targets that are either explicitly required (as established by statutes) or set as internal, non-binding goals. Some programs do not have any targets to benefit Priority Populations.<sup>508</sup>

According to our interviewees, this drive for equity initiated by SB 535 and AB 1550 has pushed State agencies to wrangle with integrating equity goals and outcomes into their programs. Agencies implementing CCI programs have to consider how to maximize program benefits to Priority Populations; many work closely with CalEnviroScreen to identify priority communities, conduct targeted outreach as needed, and design projects (e.g., local transportation infrastructure) to ensure they land in DAC or low-income communities. CARB, through its consultation with agencies, as well as through its CCI Funding Guidelines, have also provided support towards these efforts.<sup>509</sup>

While there are baseline requirements, in practice, the extent of driving with equity goals varies by program. From our case studies, we found that some programs like Transformative Climate Communities (TCC) *began* with a focus on reaching the most deeply Disadvantaged Communities (DACs) and consistently iterates towards this objective. In contrast, a program like the Sustainable Agricultural Lands Conservation (SALC) is highly cost effective when it comes to reducing GHGs, but provides few near-term benefits to Priority Populations despite efforts made by program administrators to conduct outreach to Tribal Nations and other groups. The Dairy Digester Research And Development program (DDRDP) has little to show when it comes to truly leading with equity. Despite what is publicly reported—that 67% of DDRDP funding benefits Priority Populations—we learned that many community members do not perceive this investment as a benefit.

Overall, we observed that many CCI programs have worked to better integrate equity considerations into programs’ design, particularly over time and in response to advocates’ calls. These include the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP); Affordable Housing and Sustainable Communities (AHSC), High Speed Rail (HSR), and even the SALC program which is working to deliver more program benefits to Tribal communities. While CARB cannot require Administering Agencies to shape program design beyond what is statutorily mandated from the programs’ funding sources, we believe it plays an important role in supporting the development of program-level investment targets with agencies. This effort should continue to push each agency to reflect on goals and processes that can help deliver more benefits to recipients with the greatest needs.



## Leading with race-conscious solutions that center the most impacted communities

At the state level, it is uncommon to see race-conscious solutions because of Proposition 209 (1996) that ended affirmative action and made it illegal to consider race in many areas including public employment, education, and government contracts.<sup>510</sup> In acknowledgement of historic systemic racism that has created environmental injustices in California and beyond, however, CARB has employed other methods of pushing race-conscious solutions. For CCI, CARB utilizes the CalEnviroScreen (CES) to define Priority Populations and, in part, also acts as a proxy to address racial inequality: the higher the CES score, the more people of color in that DAC as seen in Figure 5. In this way, CES provides some focus to CCI funding that is, “maybe not as precise as it could be, but gets close to some race conscious solutions,” according to Zach Lou of the CA Green New Deal Coalition.

A critique of using CES in this way, however, is the lack of more specific prioritization of communities within and between DACs.<sup>511</sup> For example, before the current CES 4.0, the land of Tribal Nations was excluded from CES, and thus not included in “Priority Populations”.<sup>512</sup> Similarly, there is no way of knowing where Disadvantaged Unincorporated Communities (DUCs) are when using CES (for more on DUCs, see Section 5 of this report). Our research has not revealed much effort by CARB or administering agencies to identify and work with DUCs.

In terms of centering the most impacted communities, the funding guidelines require that administering agencies design programs to “avoid potential substantial burdens to disadvantaged communities and low-income communities.”<sup>513</sup> They also require that job creation, training, and other jobs-related outcomes be facilitated wherever possible and to maximize economic, environmental, and public health co-benefits where applicable and to the extent feasible. However, there are no explicit requirements for CCI programs to produce these outcomes. More clarity on how to meet the conditions “wherever possible” and “maximize...to the extent feasible” would help CCI reach the communities that need these investments. That said, CARB has developed a “Vision for Environmental Justice and Racial Equity” which was referenced by several State administrators. This vision promotes environmentally and racially just policies and activities that “provide tangible and immediate gains for historically oppressed people” with the help of community stakeholders; however, this is not an action plan with clear ties to CCI.<sup>514</sup>

## Equity in Process

**2. Center the agency and stated needs of EJ communities, Tribal communities, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.**

In the context of CCI, centering the agency and stated needs of communities would look like



community groups directly identifying needed climate investments, accessing resources accordingly, and being able to shape CCI to meet their needs. What we currently see with CCI are well intentioned efforts to allow for community participation in parts of the initiative, but a foundational lack in true community agency around how CCI operates. We believe this is due to the fragmented nature of CCI programs; inability for communities to influence key processes such as funding allocation; and the lack of a mechanism for vetoing unwanted and potentially harmful projects. Our research additionally found that increasing but still imperfect engagement with California Tribal communities and addressing the specific needs of Disadvantaged Unincorporated Communities (DUCs) are other areas for improvement.

### **Barriers to cohesively leveraging dollars towards community goals**

Most CCI programs allow for community input by presenting program guidelines in draft form and allowing feedback. This is helpful for opening up opportunities for community voices to shape selected programs. Beyond this, a major issue we heard is that it is difficult for communities to advance community-driven projects in a cohesive manner using CCI resources. CCI's programs are highly fragmented. If a community identifies projects like urban greening, transit services, and affordable housing as high priority needs, CCI dollars for these projects must be accessed through multiple programs with different lead applicants (e.g., parks department, transit agency, housing developer). There is no centralized way for community groups or members to cohesively leverage the full pool of CCI dollars towards a community-identified vision. Users must work with different application guidelines and timelines, many of which are modified year-to-year. The notable exception is the TCC program, which allows a multi-stakeholder applicant team to draft a holistic, community-driven investment plan that includes a variety of project types (for more details, see our TCC case study).

The fragmentation of CCI programs also seems to hamper opportunities for deeper collaboration among local groups to advance regional goals together. For example, our conversation with stakeholders in Oxnard revealed that local CBOs were not aware of some CCI funding opportunities. One interviewee shared that had local organizations known about these opportunities, and had they been able to collaborate on grant applications, the region could have benefited by accessing more needed investments like transportation infrastructure.

### **On influencing CCI funding decisions and matching the scale of need**

Community members and CBOs are generally not deeply involved in the process that determines which programs are funded year-to-year. Currently, 65% of GGRF dollars are “locked-in” each year for annual appropriations to six programs (see Section 4).<sup>515</sup> The remaining 35% of GGRF dollars are appropriated to different agencies each year by the legislature through the state budgeting process which is often opaque and inaccessible to most people.

From this remaining 35%, funding for various programs is not guaranteed and has to be fought for year-to-year. We heard in our conversations that it is the work of advocates to ensure that programs—especially those with broad community support like TCC—are protected and sustained.

One EJ advocate noted the fatigue from this experience, particularly when it comes to requesting and protecting funding for programs like TCC which has clear, nearly unanimous support from EJ communities. The advocate shared that this misalignment between what is continuously funded and not, "[s]peaks to that lack of transparency and alignment across communities, community advocates, and our elected officials."

The unreliable nature of funding for most CCI programs means that funding is often discontinued which in turn, can limit programs and projects' long-term impact. This is particularly true for programs that fund operations like transit. We heard from CBO representatives in Ventura County that helpful bus service lines that were funded through a CCI program were reduced after initial funding because the funding was not sustained.

We also heard time and again that CCI dollars alone are not enough in high-need places. In communities with decades-long periods of disinvestment with inadequate infrastructure (e.g., clean, reliable water; electricity; roads), and in places with severe contamination from industrial facilities, CCI investments—for instance \$38M and \$60M in places like Richmond and the Eastern Coachella Valley, respectively—are nowhere close to meeting communities' needs. As Katt Ramos from the Richmond Our Power Coalition noted, "...[T]hese investments are great, but one, they're sporadic. Two, they're not necessarily that big in the scheme of things...they're great, but this is a drop in the bucket compared to the longer term need."

### **On vetoing unwanted projects**

Currently there is no mechanism within CCI for vetoing unwanted projects and programs. One program in particular, the Dairy Digester and Research and Development Program (DDRDP), has faced push back from community members and CBOs for years. Many have cited concerns about digesters exacerbating soil and water pollution, having limited impact when it comes to curbing malodors, and perpetuating harmful agricultural practices for the purposes of producing biogas—for more on this see our DDRDP case study. Despite these organized voices from residents and CBOs, there has been no way to defund this unwanted investment which has been concentrated throughout the Central Valley, a region already heavily burdened by pollution and poverty. One of CCI's guiding principles is to ensure that programs "[a]void potential substantial burdens to disadvantaged communities and low-income communities."<sup>516</sup> However, examples of projects like those funded by the Dairy Digesters program show that there is not always accountability around this guideline, and there is currently no avenue through which community members most directly affected can stop these projects from being constructed in their neighborhoods.

### **Tribal communities**

CARB has made dedicated efforts over the years to deliver more CCI benefits to Indigenous communities. For instance, as part of updating CalEnviroScreen to its current 4.0 version, the definition of "Disadvantaged Community" was expanded to include any lands under the control of federally recognized Tribes, which gives these communities priority status for funding in many

programs.<sup>517</sup> Selected programs, like AHSC and SALC, have created set-aside goals to deliver more awards to Tribal entities in any given round of funding which some interviewees identified as helpful and a good step forward. For HSR, the HSR Authority has provisions for including and paying Tribal monitors to provide input during project activities that may affect tribal cultural resources.<sup>518</sup> Strategic Growth Council (SGC), an administrator of several CCI programs, also launched a dedicated Tribal Technical Assistance Pilot in 2023.<sup>519</sup>

In terms of Tribal grantees' experiences with using different programs, our interviewees identified generally positive experiences, in addition to significant areas for improvement. When applying for a Forest Health program grant, a representative from the Hoopa Valley Tribe shared that once they became aware of the opportunity, the process was overall smooth and successful. Interviewees from the Santa Rosa Band of Cahuilla Indians who received the Community Solar grant shared that the process of accessing funding was fairly straightforward, largely thanks to the project partner GRID Alternatives which spearheaded the bulk of the application and paperwork. When it comes to the Affordable Housing and Sustainable Communities (AHSC) program, the first Tribal entity to receive program dollars, the Yurok Indian Housing Authority (YIHA) noted that while the project provided excellent benefits (e.g., 36 new affordable housing units for enrolled Tribal members), the application process was extremely challenging. Because the program was not explicitly designed to serve Tribal entities, there were processes and requirements that were not familiar to YIHA—e.g., the need to first access a traditional bank loan for housing construction, then receive permanent financing through the program; the need for application materials like climate impact studies; and the extensiveness of the application in general, which required significant staff time and resources (additional details can be found in the AHSC Case Study). With this said, interviewed YIHA staff noted that for the most part, the administrative aspects of using AHSC had been “workable” with the administering agency and that ultimately, the outcomes of the project outweighed the challenges of accessing AHSC funding.

Beyond administrative difficulties, we identified more fundamental challenges that Tribal entities experience with CCI and state funding in general. For example, many Tribes are not willing to utilize grant programs that require a limited waiver of Tribal sovereignty which builds upon centuries-long tensions and unbalanced power dynamics between Tribes and the State. One workaround has been partnering with trusted CBOs or other organizations that can serve as a primary funding recipient with a Tribe as a partner or sub-grantee (e.g., for selected CAL FIRE grants). Another challenge has been the limited proficiency of State agency staff who, though willing and many committed, to work with Tribes, are unfamiliar with the administrative and legal processes involved. A Tribal staff member noted that when they interact with a new State agency, this requires a “re-education of staff” each time. Lastly, when it comes to CCI in particular which includes many programs that are explicitly designed to support GHG emissions, the project applications that are most competitive may not necessarily represent the types of projects that are desired, or are even feasible, for Tribes—for example, housing constructed near transit. We heard feedback that it would be helpful for State funding opportunities to be designed with Tribal entities' needs and desires first and foremost, which could include creative alternative ways of addressing climate change beyond the project types that are prescribed and encouraged through programs designed by the State.

## Centering Disadvantaged Unincorporated Communities (DUCs)

As mentioned in Chapter 5 of this report, DUCs are areas that have faced long histories of political underrepresentation, disinvestment, and neglect—and are also often home to Black residents and other people of color.<sup>520</sup> Given that DUCs are populated areas that do not fall within city limits, these communities often face a myriad of issues related to basic infrastructure (e.g., water, roads, sewage systems), higher levels of air pollution, and other challenges that are often tackled through fragmented public services. DUCs, particularly those that are rural and less dense, can experience challenges accessing competitive State funding as they do not have a dedicated local government focused on serving affiliated residents to secure and administer funding.<sup>521</sup> This in turn, can lead to DUCs falling further behind on development activities and enhancing residents' quality of life. It is also important to note that DUCs are not distinctly represented in CES 4.0; some DUCs may fall within census tracts where environmental and/or socioeconomic conditions of the census tract at-large are fairly good, which in turn masks the challenges and needs faced by DUCs within the tract.<sup>522</sup>

Among the 10 programs we examined closely as case studies, only the TCC program explicitly prioritized DUCs in accessing grant funding.<sup>523</sup> One interviewee noted that establishing set asides within selected programs to ensure that rural DUCs are effectively guaranteed a carve-out of the funds could be one approach to better ensuring resources for these places.

### 3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.

Because CCI represents a suite of over 70 programs which operate largely independently from each other, the burdens and barriers to utilizing CCI resources largely differ program-by-program. Leaning on the case study programs we reviewed, we provide examples of the spectrum of these differences and also identify particular strengths for reference.

#### Differences in accessibility across programs

The 10 CCI programs we reviewed ranged vastly in their ease of use and accessibility. On one end of the spectrum, the Low Carbon Transit Operations Program (LCTOP) is distributed based on an allocation basis, requiring local transit agencies to submit a simple form describing how funds will be used. The non-competitive and effectively guaranteed nature of funding allows transit agencies—particularly smaller agencies that are already strapped for time and resources—to easily utilize funding with little administrative burdens. The Clean Truck and Bus Vouchers/Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP) program is also designed with ease-of-use as a key goal, providing point-of-sale discounts with little extra paperwork for fleet purchasers. Both these, as well as the relatively flexible Community Solar Pilot Program, stand out as strong models for minimizing burdens on funding users.

On the other end of the spectrum, programs like Forest Health, Affordable Housing and Sustainable Communities (AHSC), and Transformative Climate Communities (TCC) involve extensive application

materials, partnership development, and in many cases, have required users to hire professional support to pull together strong applications. Arduous processes of using these programs have required many staff hours and coordination which have often contributed to feelings of frustration. With this said, the complicated, big-dollar programs do yield commensurately big benefits as evidenced by the TCC, AHSC, and Forest Health programs (discussed further in Section 8-5). More support for these applications would be helpful to ensure that under-resourced communities can have a fair chance at accessing funds.

An interviewee from the Leadership Counsel for Justice and Accountability noted, “I think that in some programs we need some explicit commitments within the programs themselves, and even in statute, directing State agencies to provide appropriate levels of support to small communities so that they can apply. And then, similar to the TCC program, built-in requirements or set asides that guarantee funding will reach communities and then tailor technical assistance in a way that allows them to put forward competitive applications.” In addition to TCC’s technical assistance support, the program also provides a planning grant option. Planning grants are specifically intended for applicants who seek investment for a planning phase where they connect with community stakeholders to identify community needs and solutions in hopes of preparing applicants to apply for the larger TCC implementation grant (for more information see the TCC case study in Chapter 6).

### **Investing in California’s technical assistance landscape**

As mentioned above, one effective way that CCI addresses burdens to applying is through providing technical assistance (TA). CCI Funding Guidelines allow programs to use a portion of allocated funds for TA. Many funding recipients we interviewed across programs highlighted TA as being very helpful for both the application process as well as reporting. In addition to sharing how critical TA was in their experience accessing these funds, some CCI grantees shared some areas for improvement. For the TCC program in particular, one interviewee noted ways that it can go even further to address barriers. For example, an interviewee shared that TA for the TCC program was made available but only towards the end of the application process after the applicant had already put in a great deal of effort and investments into the application. Starting TA opportunities earlier in the process could help address and prevent CBOs from feeling overwhelmed by the level of technical knowledge required to create a strong proposal.

Outside of such areas for improvement, overall investments in TA programs is one of the major strengths that was visible from the CCI at-large. Early investments in TA for CCI has led to what one of our interviewees called a “blossoming” of the TA and capacity building landscape in California, which helps level the playing field for under-resourced communities. In 2015, the legislature allocated GGRF funding to TA for the first time, which directed the Strategic Growth Council (SGC) to provide TA to Affordable Housing and Sustainable Communities (AHSC) applicants as part of a pilot. Additional funding from the GGRF allowed SGC to create and expand the CCI-TA program which has supported Caltrans, CalSTA, CDFA, and CSD in integrating TA provision into relevant CCI programs.

***“...the allocations directly from the Legislature [for the initial CCI-TA] were incredibly important in being able to contribute to this flourishing of TA, and help us develop these new pilots that I think have been really impactful for communities.” —Ena Lupine, Strategic Growth Council***

This work has since evolved to efforts that assist communities with more comprehensive, long-range capacity building activities such as identifying community needs, developing plans, developing partnerships, and also applying for other grants. These more holistic capacity-building programs that have come after the initial CCI-TA program have included BOOST, Partners Advancing Climate Equity Program (PACE), the Regional Climate Collaboratives Program (RCC); and the new Tribal TA Pilot. All of these, with the exception of the RCC, are partially funded by the GGRF.<sup>524</sup> SGC now has a dedicated umbrella of work focused on TA and capacity building, known as the Community Assistance for Climate Equity Program (CACE), under which all of these fall. These programs are critical for evening the playing field for under-resourced communities in accessing and leveraging funding opportunities. Finally, it is also important to note that initial investment from GGRF into TA for selected CCI programs had a significant role in contributing to the TA and capacity building landscape we see today.

#### **4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power**

A key way to further equity through climate investments is by building community capacity for the long term and doing so by supporting the climate power-building ecosystem in California. Accomplishing this would mean that communities most impacted by environmental hazards have the tools to effectively identify the issues they face, win and implement CCI funds, and be able to apply for future funding opportunities. The gold star of this principle is Transformative Climate Communities (TCC), which requires a Collaborative Stakeholder Structure where applicants must engage with diverse partners, including residents and community-based organizations from the project area. We saw a spectrum in other programs when it comes to if and how they invest in community organizing, leadership, and capacity building.

***“Social infrastructure and social networks are really key to the success of climate investment programs, but generally any investment in community.” —Interviewee***

#### **Building community power before investment**

CCI programs with strong equity foundations have often been built or supported by strong organizations from the ecosystem. Before TCC's creation, for example, there had been organizing by community-based organizations, environmental coalitions, and trusted philanthropy—such as CEJA, APEN, Greenlining, SCOPE, and Environmental Health Coalition, among others—to identify



community-based solutions to climate issues. These existing relationships and organizing on the local level helped set the stage for developing the foundation of TCC. AB 617, which focuses on delivering resources for air quality improvement to severely burdened communities, would not have been created without environmental justice groups that pushed back on cap-and-trade's renewal which led to the passing of AB 617 as a companion bill.<sup>525</sup> Finally, the Sustainable Transportation Equity Project (STEP) was also deeply shaped by community input, a level of engagement that was only possible because of existing community capacity.<sup>526</sup>

***“[We need to] hold our electeds accountable...because these are large investments that are being made and areas that have lacked these investments for decades.” —Anna Lisa Vargas, Communities for a New California Education Fund***

Part of CCI's success can be attributed to the pre-existing climate justice infrastructure statewide that helped build the power necessary to pass key pieces of legislation like SB 535, AB 1550, AB 617 and others, then helped design CCI programs to meet the needs of burdened communities as well as implement some of the projects. This infrastructure “is multi-layered and is ready to help implement this and go for the money,” said UC Berkeley environmental health scientist Rachel Morello-Frosch. “Environmental justice groups have been at the table, not always winning everything and not always included as much as they should be, but have had deep influence in the design of the legislation that has developed [initiatives] like CCI and then have been ready and have a lot of capacity—even though it's uneven across the state—to apply and go for these funds.” This is largely in reference to the bigger environmental justice groups that are part of the state's California Environmental Justice Alliance (CEJA) and have been able to both influence the design of CCI and utilize some of its programs. Morello-Frosch and other interviewees noted that smaller organizations experience a great amount of difficulty applying for and accessing funding, something we also saw in our research.

***“There's this whole range of things that need to happen to get moved from the 'idea' phase to the 'ready to apply for funding' phase.” —Zach Lou, California Green New Deal Coalition***

Conversely, when community capacity and ecosystems are less developed, opportunities to win funding may be missed. In one of our regional discussions with a group of environmental and climate justice organizations, we shared a breakdown of the CCI funding that has gone to their area. After digesting the CCI data, one participant noted that if they had been working with the other organizations present in that conversation, they might have been able to capture more dollars for their residents. Despite this experience, it is unlikely that the State is able to invest GGRF dollars in community capacity-building before a specific program is underway, due to obstacles such as lacking relationships and already stretched dollars. However, this is a place where local philanthropy—with existing relationships and proximity to community organizations that could benefit from these investments—can step in. Community foundations often already have connections with local organizations looking to build their impact and also have the capacity to focus on building up regional collaboratives that both harness existing relationships between organizations and facilitate new



ones. For example, the San Diego Foundation was a key player in supporting groups to put together a TCC implementation grant, both by making grants and by bringing its financial capacity to bear.

A particular nuance of building community power before climate investments is the level of robust technical capacity required to even apply for CCI funding. In an analysis of CalEnviroScreen, CEJA notes that just because an area is considered a DAC does not mean that it will win CCI funding: “Unfortunately, some highly impacted DACs or EJ communities lack the resources or the technical expertise necessary to submit winning grant proposals, and are oftentimes unable to apply or be competitive for funding.”<sup>527</sup> Our analysis of CCI data found similar trends. We found that more than half of the State’s DACs (51%) are located in Los Angeles County and that as of November 2022, Los Angeles County has received approximately 22% of implemented GGRF dollars. Our interviewees noted a few different reasons for this: knowledge of technical assistance available to them, funding to support applicants, projects that are not considered “shovel ready,” and even smaller communities that may not have organizations or municipal infrastructure to succeed, like Disadvantaged Unincorporated Communities (DUCs)—highlighting areas where community power and capacity can be built before climate investments.

### **Building community power during investment**

Building up power during investments is also a critical approach for furthering equity. As mentioned in Section 8-3, technical assistance (TA) is a critical tool for furthering access to CCI funding. However, it can also be viewed as a strategy for building long-term power and community capacity. TA often leaves applicant organizations with long-lasting skills and knowledge about how to effectively apply for government funding beyond CCI. Environmental justice organizations are so often experts in their communities but not experts in, say, quantifying GHG emission reductions from their projects (which is required for most CCI program funding applications). Katt Ramos from the Richmond Our Power Coalition shared, “We need consultants and folks who are experts at some of these phases of development. We don’t have all of that expertise. We’re just community people who are learning along the way about how to protect ourselves and change our future.” The dedicated TA programs that we detailed in Section 8-3 are helping community members, community-based organizations, as well as local government staff work on building technical skills needed to both secure CCI funding and future funding opportunities, which in turn, strengthens the overall climate justice ecosystem

***“[There is a] flourishing of technical assistance across the state in the last...few years, and so we’re wanting to do as much as we can to support agencies who are a little bit newer to this space, or who are kind of thinking through it.” —Interviewee***

In addition to TA, the larger, more coordinated CCI programs tend to create more room for greater community capacity building. As mentioned, TCC’s Collaborative Stakeholder Structure component requires communities to work together across sectors in order to win funding. TCC may actually be more transformative for community coalitions than they are for the physical environment. For the

Forest Health program, generous grant funding and a highly collaborative program design have fostered long-term investments in community capacity and increased opportunities for interorganizational relationship-building which is necessary, as fire knows no artificial boundaries. The AHSC program requires local community groups to be funded and includes scoring criteria that have pushed developers to increase community engagement and coordination between them, transit agencies, public works agencies, and others. Organizations funded by the HSR program shared that it has allowed them to expand their reach and increase capacity for community engagement efforts as well as other projects.

For more narrowly-defined programs, there is less emphasis on longer term community capacity building, but we have seen that it is possible through the Community Solar program. There, an effort was made to prioritize the joint leadership of GRID Alternatives, the Anza Electric Cooperative, and the Santa Rosa Band of Cahuilla Indians. Tribal members shared that they felt the solar project contributed to their striving towards long-term Tribal sovereignty and economic development. Although increasing community capacity for the long-term is not an explicit goal of CCI, many of the programs we looked into have had some successes to this end.

### **Building community power after investment**

CCI programs may be seeding some long-term power building, but it is hard to know the extent of it at this moment. Regional collaborations that have supported the work of programs like TCC, AHSC, and Forest Health have the potential to live on beyond the programs themselves, but this will require continued investments. Discussions with partners revealed that their ongoing collaborative work requires a steady stream of funding that may come from further State opportunities, or more likely, will be supported by philanthropy with the capacity to make equitable climate investments for the long-term. Overall, our analysis is that State funds are supporting community capacity and capacity building in some of the programs we have looked at. In most instances, there had to be enough capacity already existent to even engage with CCI and, beyond that, CCI has contributed to expanding organizational community capacity. These capacities are critical to community development. Our assessment is that the overall initiative was shaped and molded towards equity by power-building organizations. As they have been essential to creating equity in CCI, they require continuous investment.

## **Equity in Outcomes**

### **5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities on the frontlines of the climate crisis.**

Overall, when observing the initiative at large, we believe that the majority of programs are delivering the types of projects that are desired by the EJ and CBO stakeholders we spoke with. However, the

way that these investments land in a place matters: Who is involved? Who has oversight and ownership over the project? These are details that must be continuously improved upon within individual programs. Below we provide context on investment types that were identified as desired versus undesired by community stakeholders; what the benefits have been and who is benefiting; and areas for improvement when it comes to understanding benefits.

We also draw attention to the need for better coordination across CCI programs. This is important in particular, as the fragmented nature of programs seems to hamper the “felt impact” of investments in communities. We heard in our conversation with community stakeholders and local leaders through our Community Conversations that many are not aware of programs or see the results of CCI dollars said to be benefiting their community; some highlighted missed opportunities for local collaboration to access resources. Though this has, in part, to do with the need for building more awareness on climate projects that are being implemented on the ground, it also reflects needs to foster greater coordination across CCI programs which would allow local stakeholders to plan for and access funding in a more cohesive fashion that advances local goals.

## Desired and Undesired Climate Investments

From our conversations with a wide range of EJ, CBO, and Tribal stakeholders, some of the climate investment types that were identified as helpful, desired investments include the following: affordable housing; urban greening; building pedestrian and biking infrastructure; public transit; electric vehicles; solar energy; weatherization; air quality improvement projects (e.g., dust suppression, air purifiers); and water supply as well as wastewater treatment infrastructure improvements. There are many CCI programs that offer these benefits in some way, and have produced concrete, visible outcomes. For instance: [528](#)

- 10,399 new affordable housing units produced or under contract
- 201,125 urban trees planted
- 427,470+ EV or plug-in hybrid incentives distributed
- 1,069 projects implemented to expand or creating new transit services
- 150 failing water systems renovated that serve 9,456 households, [529](#) consolidations of 73 water systems, [530](#) and 560 billion gallons of water saved [531](#)

In addition to desired programs and the benefits they bring, there are also a smaller number of CCI programs that have faced pushback from community groups and advocates—for instance, the Dairy Digesters Development and Research Program as well as biogas projects funded through programs like the Low-Carbon Fuel Production Program—due to perceived harms that these programs introduce.

Lastly, there are CCI investment types that hardly any EJ or CBO stakeholder we spoke with brought up in our conversations as critical, desired investments—e.g., agricultural equipment replacement; recycling; food waste prevention and organics (compost) projects; coastal resilience; and land

conservation. Because we did not comprehensively survey every EJ community group across the state, it is not possible to say that these activities are declaratively less wanted. This is also not to say that these project types are less important for achieving climate and environmental goals. We only note these as investment types that simply were not brought to the fore as high priorities when the question was posed.

## **What are “benefits” and who is benefiting?**

CARB reports that 73% of CCI dollars are benefiting Priority Populations.<sup>532</sup> For a project to meet this criteria, it must be located in a DAC or low-income community (or benefit a low-income household); meet an important need; and provide a benefit that is “direct, meaningful, and assured.”<sup>533</sup> According to our analysis, there are 57 different benefit criteria through which CCI investments can “benefit Priority Populations.”<sup>534</sup> The vast majority of these benefits are comprehensible and supportable. However, we found some notable exceptions of benefit criteria that can be claimed while the project is not creating benefits from the perspective of actual community members, and/or may cause harms or externalities that have not been addressed. We also identified ways in which there are inconsistencies in how benefits criteria are structured.

### **Limited examples of questionable benefits criteria**

Funding for constructing dairy digesters can be considered a benefit to Priority Populations if the “[p]roject reduces odor causing pollutants (such as hydrogen sulfide (H<sub>2</sub>S) or ammonia (NH<sub>3</sub>)) or on-site criteria air pollutant or toxic air contaminant emissions...without increasing any other criteria air pollutant or toxic air contaminant emissions.”<sup>535</sup> While funding applicants (e.g., dairy operators, digester developers) state that projects provide this benefit, on-the-ground community members may not actually feel this benefit. A Kern County resident interviewed for this report noted, “...we’ve seen zero net improvements” when it comes to odors and air quality, and that dollars from dairy digester projects (over a dozen of which have landed in Kern County since 2015) are not benefiting the local community as claimed. While this example represents one perspective, there have been many other voices among local residents and environmental justice community groups that have pushed back against the claim that this project type benefits Priority Populations (discussed in the Dairy Digester Research and Development Program case study and Chapter 8-7).

Another example of questionable benefit criteria are those that have been claimed for projects that support natural gas and/or hydrogen projects. Funding users can claim that these projects benefit Priority populations if the project or “...incentives for vehicles, equipment, or renewable transportation fuel that reduce criteria air pollutant or toxic air contaminant emissions.”<sup>536</sup> In Chapter 8-7, we discuss the pitfalls with “renewable natural gas” and hydrogen fuel sources which, though less polluting than diesel gas, are often produced through the reformation of methane—a process which has led to concentrated externalities in EJ communities in California. If claiming benefits such as reduced air pollutants in one community, projects should ensure that they are not perpetuating burdens in other places, and are not funding infrastructure that continues reliance on fossil fuels or false solutions.

### **Aiming for “net benefits” that account for both benefits and potential harms**

From these examples, we can see the importance of both recognizing benefits and potential harms introduced by climate investments. In order for CCI projects to claim that dollars are benefiting Priority Populations, they should account for both aspects, ensuring that any potential harms are addressed, and that the project will still produce a net benefit.

The AHSC program is notable in that its benefit criteria already account for both benefits and harms. The criteria required for an AHSC project to be considered benefiting a Priority Population is as follows: “Project provides new affordable housing development near transit and/or increases the supply of available affordable housing units near transit, and is designed to avoid displacement of residents from the surrounding communities.”<sup>537</sup> Other programs and benefit criteria could use this as a model—for example, other programs that fund transportation infrastructure investments (e.g., LCTOP, Transit and Intercity Rail Capital Program, High Speed Rail) should also be mindful of displacement pressures that can be caused by affiliated investments and identify ways to mitigate these effects in tandem with providing benefits.

### **Improving benefits reporting for Priority Populations**

When reviewing criteria for determining whether funding can be categorized as “benefitting Priority Populations,” we identified an inconsistency in how these are structured—in particular, as outputs versus outcomes. Some benefits criteria structured as tangible *outputs* include trees planted, energy efficiency upgrades, and new affordable housing. Meanwhile others structured as *outcomes*—conditions that are produced as a result of the investment—include improved mobility, improved safety, and reduced flood risk. Because CCI project types are highly varied in nature, it is understandable that their respective benefits will also be varied. However, when these are rolled up to produce one data point—“percentage of CCI funding benefitting Priority Populations”—it becomes hard to understand the nuances of the types of benefits that are being produced.

***“Often, you’re relying on applicants to self-report on whether they’re actually doing community-identified needs assessments...people can choose selectively what communities they’re engaging to identify needs, and what that engagement looks like.”***  
**—Zach Lou, California Green New Deal Coalition**

One way to improve benefits reporting for Priority Populations is to provide benefits outputs numbers (e.g., # kWh of renewable energy generated; # rebates for ZEVs; # tons of air pollutants reduced) specifically for Priority Populations. There is much helpful information provided in CCI’s annual reports that represent outputs from all CCI dollars in aggregate.<sup>538</sup> This exercise could be done for Priority Populations specifically, to provide more tangible context on what benefits outputs have landed in DACs, low-income, and Tribal communities.

We heard additional concerns from partners who shared that the definition of Priority Populations allows too much latitude. One interviewee noted that many investments seem to be “classified as

being beneficial to disadvantaged communities because they were located in disadvantaged communities," but some of these projects were not actually identified as community priorities.

### **Uplifting additional multi-benefits**

An important success of CCI is that many projects are creating benefits that go beyond originally intended CCI goals of reducing GHG emissions. These may not always be visible as they are unique to each program and/or project and are not easy to aggregate through public reporting. Below are some examples shared by interviewees, EJ stakeholders, and other research. We believe there are many additional instances of climate investments producing these types of benefits and these listed below represent a small selection of illustrative examples:

- **High Speed Rail:** In the process of developing rail infrastructure, creating major infrastructural improvements in areas of the Central Valley by upgrading or relocating aging water, sewer, and gas lines; investing in student leadership opportunities; and improving local transit infrastructure (e.g., eliminating railroad crossings to improve mobility and public safety).
- **Community Solar:** Helped members of the Santa Rosa Band of Cahuilla Indians access new pathways for economic development after actively participating in constructing a solar project; led some community members to electrify their homes after gaining access to solar, moving away from propane gas which contributes to indoor air pollution.
- **Forest Health Program:** Through selected projects, helped fund Tribal communities' practice of cultural burns, the reclamation of this unceded sovereign right, and knowledge transfer through Indigenous prescribed fire training exchanges.
- **Transformative Climate Communities:** Built foundational relationships with the communities they serve, in part, through its Collaborative Stakeholder Structure model that guides equitable community partnerships and development to help identify local priorities and concerns, including addressing structural racism and building up the power base of youth in communities like Stockton.
- **Affordable Housing and Sustainable Communities:** Spurred uncustomary coordination among transit agencies and housing developers which has generated new project ideas beyond AHSC. Produced all-electric affordable housing construction before this became a State building code requirement.
- **Low Carbon Transit Operations Program:** Provided informal technical assistance support to smaller, rural transit agencies which allowed them to "level up" in their technical skills around VMT and GHG reduction estimations; these skills and data points were leveraged to apply for additional non-LCTOP funding opportunities.

### **6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs.**

An equity analysis of climate investments must consider local pollution burden in air, water, and soil. All climate investments include GHG reductions as part of its guidance, but not necessarily other



pollution burdens. Our findings lean in the direction of understanding air pollution, but the initiative also touches on water and soil. We found that while there are reductions in emissions, there are also considerable critiques about them. Of the implemented water programs, SAFER is focusing on priority communities but we do not have strong data on water quality outcomes. Similarly, for soil health, the outcome data is not robust. Thus, we are not able to directly speak to the health impacts of CCI in this section; for more of our analysis on health please see Chapter 8-8.

## Air

GHG and co-pollution reduction are not co-equal goals of CCI. Rather, public health benefits to the State are considered co-benefits. Funding guidelines state, "where applicable and to the extent feasible, investments must maximize economic, environmental, and public health co-benefits to the State. These co-benefits include fostering job creation; improving air quality; providing opportunities for businesses, public agencies, nonprofit organizations, and other community institutions to participate in and benefit from investments; and lessening the impacts and effects of climate change."<sup>539</sup> So, then, to what extent are CCI programs making improvements in local pollution burden?

Earlier in this report, we reviewed a set of cumulative outcomes. As a reminder, CCI projects are estimated to have resulted in the following reductions across the state: 97,141,588 metric tons of CO<sub>2</sub>, 2,730 tons of Diesel PM, 56,542 tons of NO<sub>x</sub>, 5,516 tons of PM 2.5, and 20,700 tons of Reactive Organic Gas (ROG) as of November 2022. Where these reductions take place matters, and in Figure HH, we show that diesel particulate matter, NO<sub>x</sub>, and reactive organic gas reductions attributable to CCI have all been most significant in the most burdened and vulnerable places, as might be expected. Reductions in PM<sub>2.5</sub>, the more concerning form of particulate matter, have been more evenly distributed. For a limited number of programs we saw some increases in co-pollutants (e.g. Healthy Soils Program and Woodsmoke Reduction Program), but these are considered to be offset or counteracted by other programs that produce net co-pollutant reductions from CCI's portfolio. Despite estimated air pollutant reductions that can be attributed to CCI, we heard of communities wanting more direct, visible air quality improvements and that CCI investments have not placed enough emphasis in producing these.

***"A fundamental piece is how the law is structure because the law is about greenhouse gases. It is silent on co-pollutants." —Rachel Morello-Forsch, University of California, Berkeley environmental health scientist***

One dedicated form of investment in air pollution reduction has come through AB 617, which is intended to support community-driven air pollution reduction through air quality monitoring, planning, and implementation of solutions. There are AB 617 communities that actively supported air monitoring activities, and many grantees have shared appreciation for this type of funding opportunity. At the same time, there are also communities and EJ advocates that desire greater



funding for actual reduction, particularly in places where pollution burdens are already well documented:

***“We don't need more studies to show that Richmond is polluted. It is. It's about action—technologies and actions and policies that actually address local pollution.”  
—Ameé Ravel, Asian Pacific Environmental Network (APEN)***

Another recent perspective came from the California Environmental Justice Alliance's (CEJA) 2020 Environmental Justice Agency Assessment which argues that CARB relegates community air pollution concerns to the AB 617 program, an initiative CEJA identifies as having “substantive and procedural deficiencies”<sup>540</sup> and one which our case study on CAP Incentives (in Section 6-6) identifies as a work in progress towards living up to its community-centered aspirations. CEJA's report notes: “CARB's current approach to reducing air pollution is harmful to environmental justice communities because the agency refuses to reduce and eliminate toxic emissions at their source.”<sup>541</sup> While assessing CARB's broader approach to community air pollution concerns is beyond the scope of this particular report, and while CCI's main objective is not air pollution reduction, given the disproportionate impact air quality has on Disadvantaged Communities, it is important to keep in mind how and where CCI can make improvements to more deeply center progress here.

We also heard a strong critique about how the transition to electric vehicles has been used “almost like a dangling carrot” while communities' concerns around air quality still remain. Equity stakeholders shared multiple concerns such as the technology not coming online fast enough to make the impact they have been waiting decades for; that California may not be able to regulate emissions from interstate vehicles; that charging infrastructure is not being built out sufficiently to make EV ownership feasible, particularly in rural communities; and that the lithium-ion batteries are not created sustainably. This is a particular problem in places impacted by the port, logistics, and warehousing industries, in light of the growth of warehousing and logistics.

***“I mean, this whole mitigation strategy is a constant failure. So strong the regulation, the less pollution. It's as simple as that.” — Kevin Hamilton, Central California Asthma Collaborative***

As we have mentioned, the great paradox in CCI programs is that its funding comes from cap-and-trade auction revenues. With easy GHG reductions having happened and data showing likely concentration of co-pollutants due to trading,<sup>542</sup> future GHG emissions reductions will be harder. So, while CCI has contributed to air pollution emission reductions to date, future and long-term reductions will require more dedicated emphasis on air quality improvements as a central goal of CCI programs. Some also suggest stronger regulatory frameworks based on setting caps on specific emitters, sector-based approaches, and/or creating no trading zones.<sup>543</sup>

## Water

This research effort did not focus deeply on issues related to water. However, in our interviews with stakeholders in the Eastern Coachella Valley and with regards to Disadvantaged Unincorporated Communities (DUCs) throughout the state, we heard of the urgent need for clean and accessible water infrastructure, particularly given how foundational water access is to other types of development. We found this issue at play in at least one DUC in Madera County, Fairmead, that was able to negotiate a community-benefits agreement with the High Speed Rail Authority to address key locally-identified needs, including improving and stabilizing their water provision and sewage system.<sup>544</sup>

CCI does have many programs specific to water quality. The primary ones addressing water quality are Wetlands and Watershed Restoration, Safe and Affordable Drinking Water Fund (SAFER), and California Schools Healthy Air, Plumbing, and Efficiency (CalSHAPE) Program. The State Water Efficiency and Enhancement Program, State Water Project Turbines, and Water-Energy Grant Program are focused on energy efficiency rather than water quality. In terms of equity, SAFER presents itself as benefiting Priority Populations. It began receiving 5% continuous GGRF appropriation via SB 200 (2019) with the intent of addressing gaps in water systems, especially for Disadvantaged Communities. Currently, almost all of the \$105.9 million implemented goes to Priority Populations.<sup>545</sup> Wetlands and Watershed Restoration equity implications are less clear, but CARB's data shows that it funnels \$20.5 million to priority populations through its 22 implemented projects.<sup>546</sup> While we are unable to provide our own assessment of CCI water projects, it appears promising that significant investments are going towards addressing water-related issues in communities that need it and CCI can only benefit from continued collaboration with local residents to identify needs and appropriate solutions as we heard it did in Madera County.

## Soil

Most of what we heard around soil was from the point of view of agricultural workers. Pesticide treatment of the soil and produce is linked to alarming health concerns for farmworkers, their children, and their surrounding community—an issue that came up strongly in our conversation with Oxnard and Eastern Coachella Valley leaders. Beyond this, pesticide usage limits the soil's natural ability to act as a carbon sink. CCI's Healthy Soils Program (HSP) provides “financial incentives for on-farm management practices that sequester carbon, including soil management, establishment of herbaceous and woody cover, and demonstration projects showcasing these practices.”<sup>547</sup> However, Californians for Pesticide Reform with Pesticide Action Network has critiqued HSP for its lack of attention to pesticides and has urged the California Department of Food and Agriculture (CDFA) to “ensure that funding is resulting in greenhouse gas reductions, and is inclusive of pesticide reduction strategies to mitigate climate change.”<sup>548</sup> Their full letter to CARB details how pesticides are related to GHG emissions (Chapter 8-8 for more).

In regard to soil, we were also made aware of concerns related to Dairy Digesters and the possible effects of manure lagoons on soil. Although the CDFA reports that awarded projects must install protective measures, local residents and community organizations have sounded the alarm on the longevity of these projects and the risks they pose to soil. The potential tearing of manure lagoon lining or the breakdown of these measures can ultimately result in waste and other volatile organic compounds polluting local soil.<sup>549</sup> Finally, in our Community Conversations, the lack of funding for soil remediation was lifted up, although some TCC and AHSC dollars can be used for land remediation in certain circumstances.<sup>550</sup>

***“Industries that are causing these emissions can take advantage of this program. What are the loopholes, right, that allow polluters to be the ones that use some of these funds, and how do we close those? How can we prevent these industries from benefiting from these programs?” — Ana Rosa Rizo-Centino, Central Coast Climate Justice Network***

Ultimately, although advocates have expressed ongoing concerns about soil pollution and quality, and how this affects overall community health, CCI programs do not address these issues in a dedicated way, and there is room for the initiative to provide more guidance on encouraging pesticide reduction in selected programs aimed at the agriculture sector. The initiative could do better in directing more funding to activities like soil remediation and scaling down practices like pesticide usage and manure lagoons.

## **7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities.**

While the purpose of CCI is to fund programs and projects that reduce GHG emissions, there is no explicit requirement within the initiative that it veer away from funding fossil fuel projects or energy transition strategies that may be equally harmful.<sup>551</sup> We have seen that CCI has in fact funded projects that use words such as “renewable” and “clean” but pose concerns to EJ communities. Specifically, these include methane digester infrastructure, natural gas fueling infrastructure, and hydrogen fueling infrastructure. In aggregate, these projects represent a minority of CCI investments. There is room for improvement to ensure these types of projects are not funded in the future, or have stringent guardrails attached to prevent harms.

Additionally, because we were not able to trace every single CCI project, there may be other instances of “false solution” energy projects going unnoticed—particularly given the occasional murkiness of CCI project data. For the CAP Incentives program (described below), we were only able to access detailed information on projects by contacting individual air districts across the state, not through CCI’s initiative-wide implementation dataset. It was through this requested data that we learned of natural gas projects, and in some cases, dollars flowing back into selected oil and gas companies. Though we believe that the majority of CCI dollars are not funding fossil fuel projects, we believe that no CCI funding should be used to support fossil fuels infrastructure or other harmful forms of energy.

The transition to a clean energy future also has the potential to produce new harms related to mineral mining. CCI programs include those that fund the electrification of transportation which is contributing to the large and growing demand for rare minerals such as lithium. Minerals can be mined in ways that have massive environmental and human costs, domestically and abroad. CCI currently has no guidance to reflect on these impacts and to minimize these impacts that will be exacerbated in the process transitioning towards a clean energy future.

## **Methane Digester Infrastructure**

CCI has funded over \$200M to methane biogas production infrastructure through the Dairy Digester Development and Research Program (\$195.3M)<sup>552</sup> and the Low-Carbon Fuel Production Program (\$12.5M).<sup>553</sup> Methane digesters are used to produce biogas and in the process, create serious externalities in EJ communities. The State's emphasis on producing biogas has incentivized the production of livestock waste as a profitable product, with some farmers claiming that manure has now become a more reliable income stream than cow's milk itself.<sup>554</sup> More intensified industrial dairy operations to produce biogas have led to concentrated externalities in EJ communities in the Central Valley—foul odors and air pollution, increased threats on groundwater quality, as well as soil. For more details, see the Dairy Digesters Research and Development Program case study in Section 6.

Environmental justice advocates and residents affected by dairy digesters have raised concerns that reported analyses of GHG emissions reduction potential by farm-derived biogas do not fully account for methane emissions from "...from crop production, intestinal emissions and animal feed to the disposal of manure and pipeline leaks."<sup>555</sup> Further, GHG accounting for biogas may be based on potential double counting of GHG credits from other programs, namely the Low Carbon Fuel Standard.<sup>556</sup>

## **Natural Gas Fueling Infrastructure**

In aggregate, we identified close to \$35 million for natural gas<sup>557</sup>, "renewable natural gas," and compressed natural gas infrastructure projects that were selected to be awarded by one CCI program, CAP Incentives. These dollars were awarded to various recipients including the South Coast Air Quality Management District (SCAQMD),<sup>558</sup> the San Diego County Air Pollution Control District (SDAPCD),<sup>559</sup> and the San Joaquin Valley Air Pollution Control District (Valley Air).<sup>560</sup> In a few instances, CAP Incentives funding was directly awarded to oil and gas companies such as San Diego Gas & Electric (SDG&E)<sup>561</sup> and Equilon Enterprises<sup>562</sup>—a subsidiary of Shell Oil Company. However, there was not extensive detail available on the type of natural gas projects selected to be awarded CAP Incentives dollars. Thus it is difficult to know the exact fuel source that may be supported by these projects.

When it comes to traditional natural gas, we know it is a fossil fuel, but when we consider renewable natural gas it is a bit more complicated. Renewable natural gas and its different forms as liquefied natural gas (LNG) or compressed natural gas (CNG) are produced by refining raw biogas through the

processes described in the methane digester section above, as well as other source processes such as municipal solid waste landfills.<sup>563</sup> Although CNG produces lower emissions than gasoline, the low energy density of CNG gives it a weaker fuel range that requires large fuel tanks to operate, which makes it marginally less GHG intensive than diesel fuel.<sup>564</sup> Because the prime component of natural gas is methane, the entire process from extraction to transportation opens many doors for methane leakages into the atmosphere.<sup>565</sup> Overall, increasing and enhancing natural gas fueling stations signals a welcome for continued production of fossil fuels or methane-derived biogas. For these reasons, the term "renewable natural gas" is a misnomer and considered a form of greenwashing by environmental advocates.<sup>566</sup> While these projects represent a small percentage of CCI, the initiative should not be spending any limited resources on false solution infrastructure.

## Hydrogen infrastructure

There has been increasing emphasis on developing hydrogen as a fuel source for transportation infrastructure as well as for power, heating, and for other industries. Currently, most hydrogen in the United States is produced using steam reformation of methane and "low-carbon sources" that nevertheless contribute to GHG emissions while emitting NOx gasses.<sup>567</sup> Even moving to "clean hydrogen," produced through 100% renewable electricity, will "always be less efficient than directly using renewable electricity wherever feasible."<sup>568</sup> Due to green hydrogen's inefficiencies, it must be sharply limited in its careful deployment as a potential tool to decarbonize industries and sectors that are difficult to electrify, and paired with other strategies to deliver meaningful benefits.<sup>569</sup> We found in the CCI implementation database, limited instances of hydrogen Infrastructure projects, particularly around transitioning public and private fleets to hydrogen fuel cell vehicles. Without stringent guidelines<sup>570</sup> to ensure the selective use of hydrogen, these investments can lead to the continued production of hydrogen from sources like dairy-derived methane gas and inefficient uses of water that steer us away from more efficient and direct zero-emissions solutions available for use. Currently, there exist no comprehensive guidelines for CCI programs on when and why funding should be utilized for hydrogen infrastructure and vehicles over electric vehicles.

## Mineral Mining Impacts

It is also important to recognize the immense material requirements of facilitating a transition to a clean energy future, particularly in the transportation sector. Lithium-ion batteries used in electric vehicles contain significant amounts of mined materials such as nickel, manganese, cobalt, lithium, graphite aluminum, iron, phosphate, and others.<sup>571</sup> Massive demand and subsequent increased mining is already causing disruptions in local ecosystems, threatening water supplies, posing health risks to local populations, and creating exploitative and unsafe working conditions in many mining sites across the globe.<sup>572</sup> Domestic mining has also been on the rise, with anticipated impacts to places like the Eastern Coachella Valley where the Salton Sea is located.

CCI funds clean transportation investments such as the purchase of zero-emission passenger vehicles, buses, trucks, and equipment which rely on lithium-ion batteries. Currently, there are no

explicit guidelines for CCI as an initiative or its sub-programs to consider the supply chain impacts of EV and battery production. Strategies towards this end could include requiring EV manufacturers (who benefit from sales vouchers provided by CCI programs) to commit to sourcing materials from mining companies that have been assessed and meet social and environmental standards established by the Initiative for Responsible Mining Assurance (IRMA); to using recycled content in batteries; and to establishing a plan for battery handling and material recovery at the end of vehicle's lifecycle.

The issue of mineral mining and the impact of California's clean transportation goals on mining are beyond the charge of CCI alone. More active dialogue is needed between relevant agencies (e.g., CARB, Caltrans, CalSTA, CEC) to ensure that decarbonization and benefits for marginalized communities in California do not come at the expense of harming marginalized communities elsewhere on the planet.

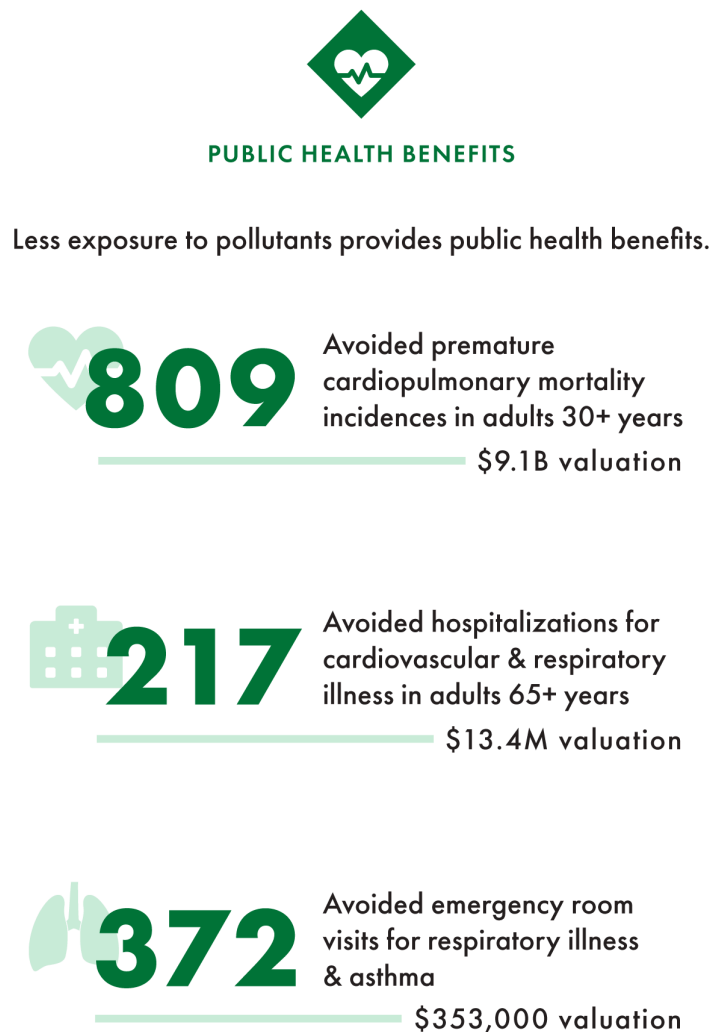
## **8. Advance health equity outcomes and at minimum, do not create more harm.**

CCI guidelines require that administering agencies design programs to “avoid potential substantial burdens” such as “increased exposure to toxics or other health risks.”<sup>573</sup> Based on this research and the information available, it is hard to know how CCI is impacting health outcomes in a robust way. Although it's included in their policy documents, it appears that it is more of a suggestion than a requirement due to the lack of widespread programming and enforcing. Many programs theoretically contribute to improved health outcomes, and there's some tracking by health equity metrics, but our analysis shows that more work is to be done to reach equitable health outcomes.

### **Health equity progress**

In addition to the air quality benefit numbers we calculated earlier (see Chapter 8-6), CARB publishes a handful of other public health benefits, as seen in Figure 36.<sup>574</sup> This information represents modeled health impacts using all CCI investment dollars in aggregate. We would also assume that CCI programs are creating other health benefits that may not be quantified including improved indoor air quality and dollars funding active transportation programs, urban greening, safe and affordable drinking water fund, and more.

**Figure 36: Estimated Public Health Benefits from CCIS**



Source: California Climate Investments. “2023 Annual Report: Cap-and-Trade Auction Proceeds,” April 2023. [https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/ccl\\_annual\\_report\\_2023.pdf](https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/ccl_annual_report_2023.pdf).

There are specific programs within the initiative that have more direct links to health equity outcomes than others, for instance, AB 617 which is focused on providing air quality benefits to the most heavily pollution-burdened communities. Other examples are programs that incentivize the purchase of electric vehicles, and particularly those domiciled in DACs. While these programs should hypothetically yield health benefits, their true impact is difficult to know. As it stands for all CCI investments, there currently are no mechanisms in place to demonstrate causal relationships between individual programs and health outcomes at the local scale. In particular, we would like to understand health outcomes by race/ethnicity since the impacts of environmental racism are distinctly racialized.



## Pesticide use

An equity issue that came up strongly in our conversations was the danger posed to the health of farmworkers and their families. In Oxnard, Teresa Gomez of Californians for Pesticide Reform shared the dangers of pesticides in the region and went on to discuss how children are heavily impacted by pesticide exposure, and that farmworkers do not have a say in what they are exposed to. Similarly, in the Eastern Coachella Valley, exposure to these chemicals in addition to the toxic dust from the shrinking Salton Sea and other health concerns such as asthma exacerbate the local environmental burdens these communities face.

***“In the Oxnard community, the largest crop there is strawberry. Within the strawberry industry, the carcinogenic fumigant 1.3 D is used, which our state scientists say is applied 14 times more than the safe level for public health. Our farmers are being exposed to dangerous pesticides without being informed of the risks and without having health insurance coverage. There is a great need with our farmers in our community due to the effects of pesticides. Exposure-related illness rates are high...there is a great need for environmental justice to end this structural racism in our community.” —Teresa Gomez, Californians for Pesticide Reform (quote translated from Spanish)***

While it might be tempting to argue that pesticides do not have much to do with carbon emissions—and thus do not have a place within CCI funding—Californians for Pesticide Reform with Pesticide Action Network wrote a letter to CARB with the subject line: "Pesticides Must Be Included In the Cap-and-Trade Auction Proceeds Fourth Investment Plan" that negates this idea. The letter notes the following links between pesticide use and carbon emissions:

- Commonly-used fumigants contribute to GHG nitrous oxide emissions,
- Pesticides contribute to formation of GHG tropospheric ozone (O3),
- Sulfuryl fluoride contributes to GHG emissions, and
- Synthetic pesticides inhibit the ability of soil to sequester carbon and can lead to increased use of synthetic fertilizers.<sup>575</sup>

Pesticide exposure is a major health concern in rural parts of the state that might be less affected by refineries, for example, but have their own impact on climate change. CCI does include AB 617 funds which fund the development of Community Emissions Reduction Plans (CERPs) and Community Air Monitoring Plans (CAMPs) in selected places. In the Eastern Coachella Valley, the community's CERP and CAMP address pesticide concerns. However, local advocates we interviewed for this report communicated that farmworkers themselves have not been sufficiently included in conversations around agricultural pesticide usage.<sup>576</sup> A bulk of AB 617 funds in the ECV have gone to the agricultural sector to replace equipment; however, the letter mentioned above urges CARB and the legislature to go much further: to include pesticide reduction and organic farming strategies in CCI funding—specifically “organic transition and the reduction of pesticides as mitigation strategies.”<sup>577</sup>

We would add to those recommendations adopting a metric like “pounds of pesticides averted.” On the whole, agricultural/food programs have received about 8.4% of implemented dollars.

## Remediation

Remediation is a major concern in urban areas. While CCI provides funding for affordable housing development through the AHSC and TCC programs, and project costs can include land remediation with restrictions,<sup>578</sup> there is no dedicated CCI program supporting land remediation. All across the state, but especially in places with an industrial history, land remediation is critical to public health and crucial to prepare for housing development. Said Katt Ramos of Richmond Our Power Coalition, “Remediation: that ticket price is insane. You know? And the ones who caused it are still sitting there polluting us and toxifying us. So how are we supposed to change our community, even in terms of affordable housing? We're supposed to build on land that is toxified? You know? And like who's going to take that brunt of cost?” She noted that the lack of remediation funding is a barrier for her community when trying to access CCI dollars.

## Respiratory issues

Finally, an obvious concern about continued pollution, both at large and especially in DACs, is the effect on respiratory health that pollutants tend to cause. As mentioned above, pesticide usage is of particular concern when it comes to asthma and overall wellbeing of farmworkers and their communities. However, we also know that continued GHG emissions into communities create harmful health outcomes including asthma and other respiratory diseases.<sup>579</sup> While health benefits are important, there currently are no mechanisms in place to demonstrate causal relationships between specific funded activities and health outcomes at the local scale.

## 9. Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.

There are different ways that individuals and households can build wealth—through a combination of building savings over time, building assets, and by reducing debt and liabilities.<sup>580</sup> Community wealth building is different from individual wealth building as it focuses on the distributed, democratic ownership and control of assets like housing, businesses, and land. While not often paired, there are strong opportunities for climate investments to help contribute to both individual and community wealth building. For instance, by ensuring high-quality jobs are reaching workers in Priority Populations; ensuring that opportunities for savings and asset building reach Disadvantaged Communities and households; and emphasizing community ownership wherever relevant.

In the context of CCI, one of the initiative’s major goals is to produce economic co-benefits with a primary emphasis on job creation.<sup>581</sup> Funding guidelines encourage Administering Agencies to integrate job training and employment opportunities into programs, and to also set targeted hiring through funded projects.<sup>582</sup> CCI has also funded some important just transition jobs programs such

as the High Road Training Partnerships program and the Inclusive, Diverse, Equitable, Accessible, and Local (IDEAL) Zero-Emission Vehicle (ZEV) Workforce Pilot. Labor and environmental groups have also been able to push selected CCI programs to strengthen their jobs component through legislation like AB 794<sup>583</sup> and AB 680.<sup>584</sup>

While job creation is happening from CCI (modeled estimate of 75,000 jobs over the course of the initiative), ultimately, the lack of public data on jobs quality limits our ability to fully understand these outcomes. And beyond jobs creation, currently available public data does not allow us to determine who CCI's economic benefits are primarily reaching—e.g., businesses, local governments, homeowners, or renters. Within CCI, there is no explicit emphasis on wealth building, community wealth building, or closing the racial wealth gap. There is more work that could be done to incorporate more high road jobs requirements into climate investments funding opportunities. CCI would also benefit from instituting job standards across programs. Finally, more work could also be done to monitor who is accessing funding, to more intentionally incorporate wealth building and community wealth building goals into the CCI, and to streamline anti-displacement efforts across relevant programs.

## Job Outcomes from CCI

### Jobs Supported by CCI

According to modeled estimates, CCI-funded projects have supported at least 50,000 jobs as of November 2022.<sup>585</sup> This modeled estimation does not include the High Speed Rail program which is estimated to have created approximately 11,000 jobs, as of June 2023.

These jobs include approximately:

- **26,100 directly supported jobs** which represent “...labor to complete California Climate Investments projects, through direct employment or contracted work paid with GGRF dollars...and labor to produce equipment or materials purchased with GGRF dollars.” <sup>586</sup>
- **7,300 indirectly supported jobs** which “... exist in the supply chains supporting California Climate Investments projects.” <sup>587</sup>
- **13,800 induced jobs** which “... are linked to the spending of income from directly and indirectly supported jobs.” <sup>588</sup>

The jobs modeling uses the Regional Input-Output Modeling System (RIMS II) model which requires an input of dollars that flow into a given industry to estimate an output of jobs supported by those dollars. <sup>589</sup> The strength of this approach is that it allows a streamlined estimation of how many full-time equivalent jobs (~2,080 hours of work) have been supported by CCI funding. However, a drawback is that this approach is not able to estimate whether jobs are permanent, long-term career positions or temporary; it also does not provide information on jobs quality, for instance, whether they pay living wages, offer benefits, training, etc. <sup>590</sup> We were not able to identify any studies aimed at understanding the accuracy of these modeled estimates for CCI programs.

## Jobs Quality

When it comes to the quality of the jobs produced by CCI, Administering Agencies must report employment information to CARB if they are funding CCI-funded projects that meet the following criteria:

- “Uses benefit criteria related to employment to count toward achieving the statutory investment minimums for priority populations; or
- The project was awar[d]ed after August 30, 2018 and the total project costs, including GGRF and other funding sources, exceed \$1,000,000...”<sup>591</sup>

Administering Agencies that are required to report detailed jobs quality data must provide information on jobs classification; the education and experience required for a given job funded by CCI; the number of jobs provided and the number provided to Priority Populations; hourly wages; whether the employer provides benefits such as health insurance, paid leave, and retirement; target hiring strategies that were used; and other metrics.<sup>592</sup> Administering agencies generally collect all of this employment information from grantees. If a project includes a subcontract larger than \$100,000, the affiliated subcontractors—as well as any second-order contractors—must report on the employment metrics above as well. We heard from many different program participants as well as selected administering agency staff that this reporting can be very onerous.

While CARB has access to jobs quality data submitted by grantees, this information is not currently publicly available. It would be helpful to complete a deeper review of the jobs that have been created by CCI to date. This information could be used to understand what types of jobs are being created by different investments (e.g., highly technical jobs that require many years of experience versus entry level jobs; jobs with benefits versus not). This would allow us to understand whether there are differences by investment type, and also assess whether CCI projects produce higher quality jobs than non-CCI funded activities.

## Incarcerated inmate labor

While representing a very small percentage of CCI dollars, we learned from correspondence with CARB that some CCI dollars have been funneled to CAL FIRE for the Wildfire Prevention Grants Program which was then utilized to fund labor by incarcerated individuals as part of an ongoing practice by the agency. Again, this represents a very small percentage of funds—we estimate far below 1% of all CCI dollars implemented to date. Nevertheless, the extremely low, often negligible wages paid to incarcerated individuals to conduct public work, while facing outsized risks compared to standard workers, represents a deep inequity.

## CCI Programs Focused on Workforce Development

Three CCI programs are focused explicitly on workforce development. Of these, the High Road Training Partnerships (H RTP) and Low Carbon Economy Workforce programs, in particular, were uplifted by several interviewees. The H RTP program supports “industry-based, worker-focused training partnerships that build skills for California’s high road employers...”<sup>593</sup> H RTP projects have

allowed for relationship building between workers, employers, union leaders, and other sector representatives to build a foundation for advancing a high road framework within their respective industries.<sup>594</sup> Interviewees uplifted the importance of investing in these relationship building efforts in particular, as well as centering workers' voices when it comes to workforce development.

## Labor Statutes & CCI Program Requirements

CCI has been shaped by labor statutes that were advanced by both labor and environmental advocacy groups. For instance, AB 794 requires that fleet purchasers abide by labor and workforce standards, such as properly classifying employees, in order to receive CCI dollars.<sup>595</sup> Additionally, AB 680 requires that CARB, in collaboration with the Workforce Development Agency, update CCI Funding Guidelines to include workforce standards for selected programs that receive continuous GGRF appropriation.<sup>596</sup> As of the drafting of this report, this update process is ongoing. While both of these pieces of legislation are good for advancing stronger workforce standards, they currently apply to only a subset of CCI programs. The advocacy group Jobs to Move America and many other labor and environmental groups<sup>597</sup> have called upon CARB to use the U.S. Jobs Plan, a policy tool that encourages government agencies to incorporate job quality metrics into consideration for funding decisions as well as ongoing compliance (e.g., “the number, type, and location of jobs the contract will create and retain, as well as salaries, benefits, training programs, and their plan to recruit and train historically marginalized workers”<sup>598</sup>). Currently, only some CCI programs include explicit workforce related goals or standards, including four of the 10 programs we reviewed in depth.

Figure 37 provides details on our 10 case study programs and whether the program includes requirements or incentives that encourage recipients to fund workforce development activities or conduct targeted hiring. We found that the High Speed Rail program has the most rigorous workforce development and hiring goals through a dedicated community benefits agreement with set targets for hiring National Targeted and Disadvantaged Workers. The TCC and AHSC program guidelines incentivize applicants to incorporate workforce development activities into their applications. The Community Solar Pilot made a light push for applicants to include a workforce development strategy but did not provide extensive details on how to do so. The other six programs we looked at did not include any requirements or incentives for applicants to incorporate workforce development activities and/or conduct targeted hiring.

We were not able to verify job outcomes for all programs and their affiliated projects. With that said, we did hear from selected interviews with funding recipients of the Community Solar and AHSC programs that distinct jobs benefits have been created; we were also able to verify robust job creation for the High Speed Rail program (see case study in Section 6), as well as job generation in underserved communities from TCC-funded projects. For the AHSC program, we received anecdotal information from developers that the workforce and hiring practices encouraged by the program have pushed them towards activities they would not have implemented otherwise for standard construction projects—for instance, creating MOUs with local labor unions and committing to targeted hiring goals and/or creating apprenticeship programs; hiring local and Section 3 workers;<sup>599</sup>

and hiring labor compliance specialists to monitor progress towards hiring goals. We were not able to access a public dataset that shows the full targeted hiring and workforce development outcomes of programs like AHSC. However, based on such anecdotal evidence from developers, we can see that encouraging these practices through program guidelines has yielded the intended, induced workforce benefits.

**Figure 37. Workforce Development and/or Targeted Hiring Requirements or Goals for Selected CCI Programs**

Case Study Program	Does the program include requirements or incentives to fund workforce development and/or conduct targeted hiring?
<b>Community Solar</b>	Yes. Funding applicants were required to identify a workforce development strategy and were encouraged to “address job quality, including family-sustaining wages and any employer-provided benefits, career pathways, and safe and healthy working conditions.” <sup>600</sup>
<b>AHSC</b>	Yes. In application scoring criteria, the program gives points to projects that include “...workforce development strategies that advance the recruitment, training, and hiring of individuals who live within Priority Population census tracts or Low Income Households.” <sup>601</sup> Can receive up to three points out of an application score of 100.
<b>TCC</b>	Yes. Applicants must develop a Workforce Development and Economic Opportunities Plan that includes programs to prepare residents for high-quality career pathways, particularly for careers in a future net zero economy, and a plan for creating local, high-quality jobs. <sup>602</sup> Applicants can receive up to 20 points (from a total possible application score of 205 points) based on the quality of the submitted plan. <sup>603</sup>
<b>High-Speed Rail</b>	Yes. As part of the High Speed Rail Authority’s “Community Benefits Policy National Targeted Hiring Initiative Plan,” construction contractors hired to work on HSR must meet the following targeted hiring requirements: <ul style="list-style-type: none"> <li>• “A minimum of 30% of all hours of Project Work shall be performed by National Targeted Workers.</li> <li>• A minimum of 10% of the 30% National Targeted Workers hours shall be performed by Disadvantaged Workers” <sup>604</sup></li> </ul>
<b>LCTOP</b>	No <sup>605</sup>



<b>HVIP</b>	No. But companies that receive vouchers must self-attest that they will comply with labor laws <sup>606</sup>
<b>SALC</b>	No <sup>607</sup>
<b>Forest Health</b>	No. But provides scoring points to project applications that identify the estimated number of jobs that will be created or supported by the project. <sup>608</sup>
<b>Dairy Digesters</b>	No <sup>609</sup>
<b>CAP Incentives</b>	No <sup>610</sup>

### Economic Beneficiary of CCI

While job creation and quality are two important dimensions of the economic benefits that the CCI could provide, another important aspect is the ability to create more assets which translate to longer-term wealth for recipients. This can come in the form of tangible assets like electric vehicles; solar PV; equipment for business or community groups that can be utilized for years to come (e.g., energy efficient machinery and tools in the forestry, agricultural, or food production sectors); as well as improvements like weatherization retrofits that increase the value of a home or building. Currently, it is difficult to understand who the main economic beneficiary of CCI funding is, as this information is not documented in the CCI implementation dataset.

Outstanding questions we have around this include: what percentage of CCI dollars are reaching private companies to purchase assets? What percentage of CCI funding is directly reaching households, for example, through vouchers for passenger vehicles? For a program like Low-Income Weatherization, to what extent is it delivering economic benefits in the form of energy savings by renters, compared to long-term wealth building by asset improvements for homeowners?

Clarifying these points would be helpful to understand what type of benefits are reaching whom, and to ensure that programs are maximizing the direct delivery of economic benefits to Priority Populations—not just to companies located in these communities or to those who already hold assets like agricultural land and can benefit from conservation easement buy-outs offered by the SALC program. Understanding this will be important for not just ensuring economic co-benefits, but ensuring economic equity through climate investments in helping close existing wealth disparities instead of enriching larger companies, fleets, wealthy homeowners, and landowners. According to CARB staff (as of our conversations in June 2023), the team is working to compile and share information on who is receiving funding in future public implementation datasets.



## Community Wealth Building Opportunities

Community wealth building emphasizes taking assets like land and businesses out of the hands of a few and democratizing opportunities for ownership and control.<sup>611</sup> Examples of community wealth building activities include community land trusts, limited equity housing cooperatives, affordable home ownership, community solar and collective energy ownership, and worker cooperatives. There are opportunities to embed these strategies into existing CCI programs, although such strategies are already visible in some CCI programs—e.g., affordable home ownership in AHSC, Community Solar Pilot. However, encouraging community wealth building is not a dedicated CCI goal or principle, and therefore, no explicit cues are given to Administering Agencies to incorporate or track the presence of these strategies.

## Anti-Displacement

Climate investments like transportation infrastructure and affordable housing have the potential to cause gentrification and displacement.<sup>612</sup> CCI Funding Guidelines ask programs to be cautious about the potential impacts of displacement for residents as well as businesses, and to avoid substantial burdens.<sup>613</sup> Programs such as TCC and AHSC require funding recipients to include anti-displacement strategies. In the case of TCC, a stand-alone plan is required as part of their funding application and includes activities like producing or preserving affordable housing, or establishing protections for tenants and small businesses.<sup>614</sup> In the case of AHSC, activities like working with a nonprofit to develop a neighborhood anti-displacement plan; funding eviction prevention and landlord anti-harassment programs; and conducting data collection and tracking related to the causes of displacement are encouraged.<sup>615</sup> However, there are other CCI programs that also make capital investments (e.g., LCTOP, High-Speed Rail) for which we have seen little to no emphasis on considering potential displacement impacts and taking preventative measures.

# Measurement, Evaluation, and Accountability

## 10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.

Conducting regular analyses is essential for understanding how CCI programs are delivering on equity and for making iterative improvements. CARB does extensive data tracking to report on outcomes and determine whether benefits (broadly defined) are landing in communities. However, more attention on understanding how CCI is actually *impacting* communities would be helpful, in addition to making more concerted efforts to track equity metrics focused on race.

## Equity analysis to understand benefits to communities

CARB collects and reports data on CCI programs' outputs, including how many dollars have been implemented by a program, where these dollars are going, and whether these dollars meet a checklist of "benefiting Priority Populations." CARB also tracks GHG emissions reduced by individual projects and programs, and corresponding co-benefits such as estimated number of jobs supported and estimated reductions in air pollutant emissions. This work by CARB is commendable in that it is no small feat to collect streamlined data for projects across 70+ programs and 20+ Administering Agencies. To meet reporting requirements, CARB has had to develop outcome tracking methods and mechanisms from bottom up, and has made iterative improvements over the last 10 years since the start of the initiative.

There are, of course, areas for improvement for CCI that CARB can take on to evaluate whether the initiative is producing equitable outcomes. We detail some of these below:

- As noted in Chapter 8-5, there are over 50 different ways that CCI dollars can be categorized as "benefiting Priority Populations." Most of these seem fair, but improving categorization of the type of benefit, correcting flawed ones, and obtaining community feedback to ensure these are accurate would be helpful.
- There are limited procedural equity metrics for CCI which leave questions surrounding how involved community groups were in influencing the initiative overall, as well as individual programs. Although CARB tracks engagement metrics (e.g., # of community meetings), there could be more thoughtful reflection on procedural equity metrics for the initiative at-large.
- Additional important equity metrics that could be integrated are jobs quality metrics, who is receiving benefits, race demographics of program applicants and funding recipients—all of which are not currently tracked.
- For estimated benefits outputs (e.g., # kWh of renewable energy generated; # rebates for ZEVs; # tons of air pollutants reduced) it would be helpful to know the degree to which these are landing in DACs, low-income, and Tribal communities.
- Lastly, metrics on potential adverse impacts such as displacement should also be factored into the net calculation of "benefiting Priority Populations." While an investment like a transit stop can improve mobility in the short-term, it has potential gentrification effects. Both benefits and potential adverse impacts should be identified.

At the end of Section 5, we also offer a set of recommendations to CARB staff on their CCI Detailed Implementation dataset, with which we worked extensively during this analysis.

## **Equity analyses to understand impacts on communities**

Through this work, we have found that quantifying outputs or even benefits landing within a community is not the same thing as understanding the impacts these investments are having. When we spoke with community stakeholders in the Eastern Coachella Valley, Oxnard, and Richmond, as

well as staff members of statewide environmental justice advocacy groups, it was clear that many were not aware of much of the CCI investments made in their own neighborhoods. Despite funding directed to projects like air quality and clean mobility in Richmond, a local stakeholder there shared their lack of familiarity with those dollars due to the lack of impact felt and seen in communities.

Additionally, when it comes to understanding impacts on Tribal communities, it is difficult to tabulate baseline information around how much funding has landed in a Tribal community. While CCI's implementation dataset includes a column to identify funding recipient names, it's important to note the information in this column may not always be a primary funding recipient due to limited administrative infrastructure to direct receive dollars or concerns around Tribal sovereignty; ergo, Tribal communities may be accessing CCI dollars and benefits as sub-recipients, but it is difficult to clearly understand comprehensive dollars flows and estimated impacts using CCI's public database as it currently stands.

## Transparency

The CCI website and Annual Reports provide a wealth of information. They provide information on dollars spent per program, and the percentage of dollars benefiting Priority Populations. CARB also provides a breakdown of where dollars landed by different geographies (e.g., Senate and Assembly districts) and provides a host of other ways of interpreting this data, such as through factsheets and interactive maps. Allowing users to access a neighborhood-scale presentation and download of information—i.e., what projects and benefits have landed in their communities—would help make this information even more impactful and useful.

## Accountability

Among individual CCI programs, we see different levels of responsiveness around iteratively improving programs towards greater equity-centered processes and outcomes. For programs like AHSC, TCC, HVIP, and High Speed Rail, we heard from stakeholders that the affiliated implementing agencies—SGC, CARB, and the High Speed Rail Authority—have been responsive to stakeholders' feedback over time and have updated guidelines and offerings to center under-resourced applicants and to provide more direct benefits. These programs are also notable for high-quality reporting which provides transparency—HVIP's Voucher Map is just one good example.<sup>616</sup> In regards to TCC, the program has dedicated evaluators for select funded sites which report on outcomes as well as qualitative, anecdotal feedback from the communities.<sup>617</sup>

On the other end, programs such as the AB 617 Community Air Protection Incentives provide extensive information, but is difficult to navigate; further, some basic information like who dollars are reaching is currently inaccessible. Finally, one notable program that has demonstrated less accountability and a lack of transparency is the Dairy Digester program. EJ advocates across the state criticize the perceived harm this program causes, as well as the cloudiness of data due to protections of trade secrets relating to dairy practices. There needs to be more attention and action around

investments that local residents have pushed back on—both with regard to individual projects as well as at the scale of the CCI's funding guidelines to create guardrails and processes that support community voices.



# LESSONS TO ENSURE CLIMATE DOLLARS SUPPORT COMMUNITIES WITH THE GREATEST NEEDS TRANSITION TO A JUST FUTURE

Building on the learnings from our analysis of the California Climate Investments, we offer these lessons for both California as well as other states and federal actors creating and implementing similar investments. These are not all of the lessons that can be derived from CCI's first decade but the ones we find most pertinent to help ensure that climate dollars support communities with greatest needs transition towards a just future.

## **1. Equity goals matter and must be paired with clear requirements, trackability, and accountability to yield measurable results.**

The mandate by SB 535 and AB 1550 to deliver at least 35% of CCI benefits to Disadvantaged and Low-Income Communities set many innovations into motion: the creation of new definitions, accounting mechanisms, public reporting, dedicated outreach to priority communities by state agencies, as well the build-out of a technical assistance and capacity building landscape to support under-resourced communities. And ultimately, we found that well over 35% of CCI dollars are landing in and benefiting priority communities by some measure. Equity goals matter.

What we have also learned is that when equity aspirations are not paired with clear, trackable requirements as well as accountability, it is difficult to understand results. For some of CCI's well-intended goals such as maximizing co-benefits or fostering job creation wherever possible, it is difficult to measure success given that there isn't clarity on how standards for "maximizing" or "wherever possible" is determined and by whom. To understand results, all metrics of interest must be clearly defined and intentionally tracked. In tandem, accountability mechanisms are critical. CCI investments are required to avoid potential substantial burdens to disadvantaged and low-income communities, but we've seen projects such as methane digesters that have faced local pushback funded by the Legislature across multiple years. For future climate investments, we encourage equity goals to be paired with clear requirements that can be tracked, including data on who exactly is receiving dollars (entity type, race, demographic information), as well as strong accountability mechanisms.

## **2. Climate investments produce the most visible, felt impacts when projects are community-driven or have significant community buy-in and involvement.**

The climate investments that we heard community groups uplift again and again were those that responded to a clear need and had strong community involvement. For instance, housing development that included well-funded engagement activities through the Affordable Housing and Sustainable Communities program; broad suites of projects thoughtfully produced by local collaboratives under the Transformative Climate Communities program; a Community Solar project on Tribal land which residents helped construct, bottom-up; and wildfire prevention activities that funded ongoing forest restoration projects led by community-based organizations. The programs that invest in community engagement, community-led solutions, and local partnership development—though more costly and complex—are also the places where we see the richest additional benefits that go beyond the primary scope of the program. In particular: lasting relationships that can help spur new project ideas and keep momentum towards continuous community improvement going.

What this points to, both in California and elsewhere, is the importance of centering community needs, voices, and participation to drive climate investments. Dollars may flow into a place and reduce GHG emissions, but without centering community voices at every possible stage, felt impacts are muted and opportunities for furthering impacts through ongoing collaboration are missed. Climate investments have the potential to both mitigate GHG, help places prepare for climate change, and

help communities build power for the long term. Recognition of and ongoing support for this last leg is essential.

### **3. Climate investments are not neutral. Harmful investments—particularly those that perpetuate fossil fuel infrastructure, false solutions, worsen local pollution, or create harms globally—must be identified, and corrected or defunded.**

Benefits from climate investments must account for both benefits and potential harms. The funding of projects by CCI dollars that cause or perpetuate harms run counter to environmental justice goals. Methane biogas from dairy digesters, natural gas infrastructure, and hydrogen infrastructure that rely on biogas all stall the transition away from a true clean energy future. While the majority of CCI funding is going towards helpful, desired programs, we found instances of projects that face pushback from communities and/or entrench the State into these types of infrastructure. The same is true outside of California in which funding such as the IRA, which includes funding for oil and gas drilling on federal lands and carbon capture projects, delay a just transition away from fossil fuels.

There must be careful interrogation of both benefits and potential harms of all investments, but particularly those that community groups and environmental justice advocates have actively pushed back against. When trying to tabulate the anticipated benefits of investments—as both CCI and J40 programs will do—they must aim to quantify net benefits which account for both the good and potential harms. Adverse impacts may be increased local pollution, entrenching unhealthy industry practices or fossil fuel energy infrastructure, as well as potential economic harms like displacement from gentrification. Benefits accounting should bring to light these various possible impacts, particularly when it comes to how investments will affect communities that have historically been left behind which investments are designed to serve. They must mitigate harms, and only consider investments to be beneficial if benefits still outweigh any mitigated risks.



## 4. For equity outcomes, community and EJ groups must have structural influence over climate investments that go beyond engagement.

Having a role in influencing the structural components of CCI is currently lacking but necessary. Community groups need to be able to have a voice in broader funding decisions—for instance, how much funding is allocated to different programs, which programs receive continuous appropriations, which programs should be defunded, and how to ensure accountability around any perceived inequities. Equity in the context of climate investments is not just about the fair distribution of benefits but must also embody equitable processes. There have been greater efforts to center community voices in programs like AB 617 in which air districts have been experimenting with participatory budgeting between community members to determine how funding could be allocated. But this is not enough. In the federal context, there exists a similar lack of structural influence by bodies like the White House Environmental Justice Advisory Council (WHEJAC) whose role is limited to an advisory context.

Groups like the Portland Clean Energy Community Benefits Fund Committee serve as an example of what is possible. This nine-person body supports the implementation of climate investments in city; it “solicits applications for funding, makes program and grant funding recommendations to the Mayor and City Council, and evaluates and reports on the effectiveness of the fund...” in particular, to ensure that funding is spent in way that “promotes economic, social and environmental justice outcomes.” [618](#) Bodies like this that have structural oversight and decision making power around climate investments are critical.

## **5. Ongoing support from the State and philanthropy is needed to ensure communities can easily utilize public climate dollars, and build longer term capacity. In particular, defragmenting programs, streamlining and reducing administrative barriers, and providing ample technical assistance should be priorities.**

We found that despite increased investments in technical assistance it is still not easy to use public dollars, particularly for larger-scale capital projects. From pulling together competitive applications, receiving funding, to reporting, processes are demanding both in staff time and technical expertise. This is particularly true for first-time and smaller funding recipients. For CCI, the fragmented nature of opportunities (70+ programs to date with different timelines and application requirements) has also made it difficult for communities to keep up with what funding is available, and to pull these in in a cohesive way. In the face of these challenges, one CCI program, Transformative Climate Communities, serves as a strong model for what is possible when a coordinated set of projects is funded in a bundle. The process of developing plans and applications is very difficult, but the pay-offs in outcomes and felt impacts have been equally exceptional.

The issue of ensuring that under-resourced communities can easily utilize funding and overcome the chaos of fragmentation is not limited to California. We see much of the same challenges emerging with federal climate investments funded by the IRA and BIL. As funding rolls out, dedicated resources from government and philanthropy to address this is necessary as well as streamlining guidelines across different programs; identifying and eliminating any unessential administrative requirements; and supporting regional collaboratives and accelerators for under-resourced applicants. Outside of CCI, the emPOWER model of activating community-based organizations in Los Angeles County to provide targeted outreach and enrollment assistance for residential environmental benefits programs has been uplifted by advocates as an effective way to increase both access to public dollars and organizational capacity.<sup>619</sup>

## **6. Tribal Nations and Indigenous communities relate to climate investments in their own ways, and investments must tailor support to respect the unique context of these communities.**

California has a long history of violence and dispossession of Tribal Nations and Indigenous communities. A reparative stance in all regards, including investment decisions, is an imperative. Some CCI programs, like Community Solar and Forest Health (as well as CARB as an entity) have made steps in the right direction—by providing energy and economic benefits which indirectly support goals towards long-term Tribal sovereignty, by building iterative relationships with Tribal representatives, and more. However, CCI is not well-structured to support Tribal Nations and Indigenous groups. For example, CARB timelines are out-of-sync with Tribal government processes. Moreover, CCI dollars are directed to places with high GHG emissions, which is generally not Tribal Land. Especially concerning, Tribal sovereignty is undermined when Tribal Nations and Indigenous communities are required to sign sovereignty waivers in exchange for CCI funding, or otherwise circumvent their own sovereign rights.

Tribal Nations and Indigenous communities across what is now the United States share similar histories of violence, dispossession, and disinvestment to California communities. Equitable climate investments must fundamentally respect the sovereignty and land stewardship of the people who are the original inhabitants of these lands by fully incorporating Tribal Nations and Indigenous communities into all investment processes without any requirements to waive Tribal sovereignty. Centering Tribal and Indigenous voices in funding decisions—and allowing them to make their own decisions on project implementation—reduces the risk of perpetuating the exclusionary practices that have characterized the relationships between Tribal, state, and local governments. Funding decisions that take existing place-based emissions into account must also take into account the fact that while Tribal and Indigenous communities often live in places with low emissions, they have also been uniquely disinvested and dispossessed for centuries—and are in need of funding in the future because of these past policy decisions.

## **7. The ecosystem for climate justice has and will continue to make climate investments more equitable and impactful for communities through power-building, advocacy, community engagement, and project implementation.**

Throughout our work, we have seen that advocacy itself is crucial to producing equity outcomes. Since the start of CCI, consistent advocacy has improved individual programs within the climate investments portfolio. TCC itself was created by environmental advocates who then have pushed for continuous funding to renew this oversubscribed program that does not receive guaranteed appropriations year-to-year. Input from climate justice advocates has also directly led to increased funding for Tribal Nations and Indigenous communities, milestone payment structures, set-asides for under-resourced funding users, and many other program-specific equity improvements. Ultimately, the climate justice ecosystem in California is strong, and will continue to shape CCI.

Climate advocacy ecosystems play a critical role in the future of our planet and marginalized communities everywhere. As equitable climate investments become increasingly important in a world ravaged by climate change, it is critical that communities and organizations are in a strong position to advocate for continued improvement of climate investments, and that government agencies are willing to collaborate with advocates. Advocates are the ones who will continue to carry these lessons (and many others) forward, who will push for more equitable climate investments, and who will create a more just world.

## **8. Complete data that incorporates community knowledge alongside quantitative statistics is important for determining and tracking equity outcomes.**

Although CARB and other agencies have made some considerable progress in tracking how funds are allocated and how they translate to outcomes and impacts, our analysis was limited by incomplete data. Since grantees shared with us that they are already overburdened by reporting requirements,

CARB must consider how to gather more data to paint a clearer picture of the outcomes while minimizing the burden on grantees. This might mean hiring specialists to do this work alongside grantees. In particular, it is difficult to determine which entities are ultimately receiving and benefiting from CCI dollars, whether communities have access to high-road jobs, whether investments are leading to displacement and gentrification, and what the impacts of investments are at smaller geographic levels, among others (for more, see “Recommendations to CARB” in Section 5). Although some administering agencies have made greater efforts to seek out data from DACs, it was often our conversations with community stakeholders themselves that revealed continued environmental injustices and climate inequities in the face of incomplete CARB data. Throughout this effort, we have found CARB’s data staff to be exceptionally collegial and communicative about their data work and so, hold high hopes for CCI’s data infrastructure.

To create more equitable climate investments, we must think with—not for—the communities most impacted by environmental harm and discrimination. More needs to be done to center the expertise of climate justice communities in data acquisition and analysis, and to create data that is meaningful and useful to such communities, while avoiding overburdening communities with reporting requirements. While maintaining useful data collection processes and databases takes considerable work, it is well worth the effort.

## **9. The next evolution of climate investment programs can build on previous improvements by producing deeper economic benefits including high-road jobs, supporting community wealth building, and building long-term capacity and power.**

Over nearly a decade of implementation, we’ve seen that many programs within the CCI suite have “leveled up” over time, more deeply integrating equity goals and set-asides into guidelines and establishing more clear cues for pair funding with co-benefit outcomes. These include programs that have created set-asides and specific target audiences (e.g, small fleets for electric vehicle upgrades), and programs like AHSC which has included more rigorous requirements around anti-displacement activities, jobs quality, and community engagement over time. These activities are producing deeper equity outcomes and a more prepared ecosystem of funding users who have learned to navigate programs, applications, and work with technical assistance providers.

We’ve seen that over time, there are opportunities for programs to push the needle further to deepen equity and co-benefit outcomes. In particular, more clear linkages between climate investments and

economic benefits is needed by centering the production of local, high-road jobs and more clearly centering opportunities for low-income communities to build wealth. Future climate investment should work to answer the question who climate investments are benefiting most, in the context of economic outcomes and work to ensure that these dollars can be used and leveraged by low-income households and communities of color, to build economic power and help close racial wealth gaps that have only widened in the last decade.

## **10. In many places, including California, the immense scale of need in pollution-burdened communities likely requires deeper, more reliable funding towards climate justice solutions, including philanthropic investments.**

Environmental racism is prolific in California and the direct result of decades of discrimination, neglect, and profit seeking at all costs. CCI dollars are largely funding projects that are helpful, desired by communities, and necessary—affordable housing near transit, public transportation, electric vehicles, urban greening, solar energy, weatherization and more. Even so, these dollars do not come close to the level of need to address foundational challenges that environmental justice communities face. This includes unreliable infrastructure for clean water, electricity, and transportation as we’ve seen in the Eastern Coachella Valley; high pesticide exposure in agricultural communities like Oxnard; toxic soils that must be remediated before development activities are even feasible in places like Richmond, all in addition to ongoing challenges with air pollution throughout the state. The rapid pace of climate change makes existing threats even more dire.

What we have seen is that CCI dollars—though good—are not enough. Not only is the initiative limited to available funding which shifts year-to-year based on cap-and-trade revenue performance, but the funds must be divided among dozens of programs. And importantly, CCI funding is often constrained by the primary mandate that the initiative is designed to fulfill: reducing greenhouse gas emissions. Pesticides reduction, soil remediation, housing and infrastructure in rural places, and many other activities—though critical for advancing environmental and climate justice—do not fall squarely under the intended purview of the CCI and remain unaddressed in many places. Deeper, more reliable commitments to funding comprehensive climate justice solutions are still needed. The GGFRF, one dedicated funding source primarily designed to address GHG, cannot be relied on exclusively to fix decades of environmental harms.

## Implications for Justice40 and Federal Climate Investments

While this report has focused on analyzing a statewide climate investment effort, we can apply many of the lessons derived from CCI to Justice40 to achieve more equitable climate investments at the federal level. There are already similarities between CCI and federal climate investments. For instance, while many programs funded under CCI, IRA, and IIJA support projects that are beneficial for communities, there are also harmful investments that must be corrected. There are Justice40 covered programs that are funding expanded oil and gas drilling on federal lands (near Tribal lands) and carbon capture efforts which delay a just transition away from fossil fuels.<sup>620</sup> In their 2022 analysis of the IRA's energy policy and investments, the Just Solutions Collective found that the legislation does not meaningfully incorporate divestments from fossil fuels or pollution remediation in EJ communities.<sup>621</sup>

As federal agencies and the White House Council on Environmental Quality (CEQ) continue to implement Justice40, the initiative can be wielded to make further progress on what's good—getting necessary, helpful investments to places that need it—and shine a spotlight on where the Biden Administration needs to do better to live up to its stated environmental justice values. Communities must have clear avenues to not just draw in dollars for desired projects, but also to reject unwanted investments through increased procedural equity. In part, this can be done by giving more legislative teeth to bodies like the White House Environmental Justice Advisory Council (WHEJAC), which is composed largely of representatives from community-based organizations.<sup>622</sup>

Justice40 must also concern itself with local and regional climate and environmental justice ecosystems. Our work has shown that these ecosystems are critical for making climate investments equitable through their production of thoughtful, multi-benefit projects that reflect community desires and push for improving the policies that guide investments. Unfortunately, the presence and strength of these ecosystems are uneven, both in California and across the country. This is why greater federal investments in increasing community capacity—like the J40 Accelerator and other regional capacity building efforts—are critical to helping communities to effectively advocate for positive investments and against negative ones. The places in the country with the least community capacity due to historical underinvestment cannot continue to be left behind, and must be a key component of how federal administrations design Justice40 and other climate investment efforts.

Through all of these processes, Justice40 and other federal climate investments need more tracking and accountability for us to collectively understand what's happening with funding dollars, and whether 40% of benefits are actually flowing to disadvantaged communities. Some advocates have recommended that this could be achieved by having a clearer definition of “benefits.”<sup>623</sup> While the CEQ's Climate and Economic Justice Screening Tool (CEJST) provides a good foundation for identifying communities to direct Justice40 funding to, it may also be limited in its ability to reduce racialized gaps in pollution exposure since the tool does not explicitly consider race and ethnicity as an indicator.<sup>624</sup> Continuous improvement of transparent data collection methods for tools like the CEJST that takes all relevant factors into consideration, in addition to accountability structures that



ensure that programs meet their funding allocation metrics, will be critical in moving equitable federal climate investments forward.

# RECOMMENDATIONS FOR STAKEHOLDERS

From these lessons and the broader equity analysis, we also offer our recommendations. While the USC Equity Research Institute usually does not offer recommendations on policy, we found that the California legislature's role was outsized in CCI and needed its own set of recommendations. We have recommendations for CARB, the lead agency that oversees the administration of CCI; and we offer recommendations to philanthropy, which we believe has a critical role to play in ensuring equitable outcomes. Lastly, we offer a set of recommendations for federal agencies and the White House Council on Environmental Quality (CEQ) with the hopes that lessons learned from California will be helpful as the administration continues the implementation of J40.

**For the California State Legislature, we offer the following recommendations:**

1. Create a new funding source exclusively available for use by EJ communities, Disadvantaged Unincorporated Communities (DUCs), and Tribal communities to flexibly address community-identified needs that fall outside the primary scope of CCI goals (e.g., soil remediation, infrastructure, community health, affordable housing development irrelevant to GHG emissions potential).
2. Make GHG reduction and local co-pollutant reduction co-equal goals for CCI.
3. Commit to reliably funding the strongest climate justice programs—in particular, TCC with ample technical assistance funds.

4. Ban the use of GGRF dollars to fund fossil fuel infrastructure and inequitable transition strategies which would apply to dairy digesters for biogas production, natural gas infrastructure, and selected hydrogen projects that are not 100% clean.
5. Require CARB to pilot a streamlined application system for all CCI programs intended for use by local governments, community-based organizations, and/or nonprofits.
6. Allow selected CCI programs to fund work upfront instead of through reimbursement to expand program accessibility for under-resourced organizations, particularly nonprofits.
7. Create a community oversight committee to oversee CCI implementation and weigh in on key aspects (e.g., development of Investment Plans, Funding Guidelines updates, funding appropriations decisions, procedural equity, and reporting and accountability around outcomes—including jobs, environmental, and health benefit outcomes).
8. Ban state agencies from requiring waivers of sovereign immunity from Tribal Nations as a requisite for accessing CCI funding.
9. Require the Office of Environmental Health Hazard Assessment (OEHHA) to determine whether the environmental, health, and economic conditions which represent components of the CalEnviroScreen score are measurably improving in DACs with each subsequent update of CalEnviroScreen. If GHG co-pollutants are disproportionately increasing in places, task CARB with assessing the role and possible shortcomings of the current cap-and-trade mechanism in contributing to disparate geographic outcomes, and identifying avenues to address these.
10. Create set-asides for programs created by the Inflation Reduction Act (IRA) and the Infrastructure Investment and Jobs Act (IIJA), and future federal climate funding allocations to California to ensure funds lands in and benefit priority communities (i.e., those at the frontlines of the climate crisis, low-income, majority POC communities) in California.

**For CARB, we offer the following recommendations:**

1. Provide CCI funded users with well-organized, up-to-date, sortable information on opportunities and timelines via CCI websites and calendars.
2. Continuously improve CCI reporting by improving output data, neighborhood-scale implemented project mapping, data on benefits to Priority Populations, funding recipient sector and/or demographic data, jobs quality data, and data on successful CCI-related community-benefits agreements or labor agreements.
3. In Funding Guidelines, provide more clarity on how the condition “maximize...where applicable and to the extent feasible” can be met by programs for economic, environmental, and public health co-benefits.

4. Work with the California Labor and Workforce Development Agency to facilitate a transparent process that allows for labor movement advocates' feedback on the proposed approach to implementing AB 680.<sup>625</sup>
5. Streamline and update benefits criteria tables to reduce the number of possible benefit types and ensure that awarded projects can still claim that benefits to a community or household still significantly outweigh any potential harms, which must also be named.
6. Coordinate with all other State agencies working on Tribal support activities (e.g., SGC, CEC, OPR) to collect and coordinate feedback received on Tribal needs and customize program delivery to Tribes.
7. Proactively foster dialogue with the Bureau of Indian Affairs (BIA), as many CA tribes reside on trust lands associated with the BIA and future projects utilizing GGRF dollars may require close coordination with this federal agency.
8. Host a discussion between program administrators of selected agriculture CCI programs (e.g., Healthy Soils) and staff from the Department of Pesticide Regulation to identify opportunities to integrate pesticide reduction efforts (as a co-benefit) into existing program guidelines and relevant metrics that could be tracked.
9. On a regular basis, coordinate with State agencies (e.g., SGC) that are working to center DUCs in existing funding programs to identify opportunities to better support DUC communities and to disseminate best practices to other CCI administering agencies.
10. On a regular basis, coordinate with State agencies (e.g., SGC, OPR) that are already fostering partnerships with philanthropy to increase community capacity, support community engagement where the State cannot, and to catalyze programs.

**For philanthropy, we offer the following recommendations:**

While much of this research has focused on the State and its agencies as well as community-based organizations, philanthropy has played a subtle yet vital role, as well. Because environmental and climate justice ecosystems are key to equitable climate investments, philanthropy needs to be engaged so that this ecosystem is well resourced—through both public and private funding. Additionally, there are important capacities that the public will never fund (listed below). There is always a role for philanthropy as a convenor, and its financial capacities can be supportive, as well. We offer the following 10 recommendations to philanthropy in California and beyond:

1. Invest in the long-term strength of member-based organizing institutions who can anchor local collaboratives implementing climate dollars.
2. Invest in the leadership of Indigenous, Black, and Latinx climate justice leaders to ensure that those who are experiencing the most harm are leading the way to solutions.

3. Support regional collaboratives, like EJ Ready in Los Angeles County, to bring together environmental justice and community-based groups to prepare to receive government funds on their terms.
4. While public funding is catalytic, it is rarely enough on its own; the philanthropic sector should finance and fund projects that help close gaps during the planning, pre-development, and implementation phases of using public dollars.
5. When public funds are disbursed on a reimbursement basis, take the financial risk off community organizations by funding projects upfront.
6. Offer financial capacities to receive funding and allocate it to community groups as a way to support community driven work.
7. Fund opportunities to bring community-based organizations, public agencies, and funders together in a way that uplifts community agency, facilitates relationship building, identifies challenges and barriers around resource delivery, and improves long-term coordination.
8. Fund food, childcare, and participation stipends at community engagement events to supplement these activities where public dollars cannot be used.
9. Fund community and labor coalition building, so that concerns about jobs and community benefits (and risks) can be addressed concurrently.
10. Fund equity-focused evaluations of climate investments that can contribute to iterative improvements.

**For the White House CEQ, we offer the following recommendations**

From the broader equity analysis and lessons, we offer a set of recommendations for the Biden Administration and the White House Council on Environmental Quality (CEQ) with the hopes that lessons learned from California will be helpful as federal actors continue the implementation of J40. For the Biden Administration and the White House CEQ, we offer the following recommendations:

1. Create a clear list and calendar of Justice40 covered programs that can be easily interpreted by different user types and is updated on a regular cadence.
2. Develop a definition for “benefits” in collaboration with the WHEJAC, in the context of delivering “benefits to disadvantaged communities.” Any reported benefits should be reflective of both benefits and potential risks (including unintended ones).
3. Create a data tracking mechanism that will be used by all J40 covered programs to track delivery of benefits; release tracking mechanism for public input on included metrics.

4. Create metrics around community engagement to demonstrate the degree to which community members and groups were involved in driving funded projects. Require J40-covered programs to track this metric.
5. Require J40-covered programs to track and report on the primary funding recipient type for all projects (e.g., households, companies, community-based organizations, local governments).
6. Require J40-covered programs to track and report on whether job quality and job creation requirements were included in program guidelines.
7. Release benefits outcomes data from J40-covered programs on a regular cadence that includes information on demographics (including race/ethnicity), where possible, and is displayed in a way that helps community understand how investments are flowing to them (or not).
8. Solicit public feedback on J40 reporting processes and outcomes on a regular cadence; iteratively improve processes and public reporting.
9. Support efforts like the J40 Accelerator that prioritize community capacity, particularly in Black and Brown communities that are most vulnerable to climate change.
10. Identify possible mechanisms through which to give community members, community-based organization, as well as the WHEJAC more oversight and decision-making power around how J40-covered programs are designed and implemented.

For selected State agencies, we also offer the recommendations that should be referenced in respective case studies in section 6.



# CONCLUSION: A CALL TO INVEST IN COMMUNITY POWER

What we see from California is that we cannot simply fund climate projects that reduce GHG emissions and consider this a job well done. For climate investments to have visible and felt impacts, and address the inequitable impacts of decades of community disinvestment, they must be community-driven. They must center the communities that have been historically marginalized—formerly redlined and currently pollution-burdened, low-income, Indigenous, communities of color—by ensuring dollars go towards local organizations working with residents, holding a vision for their communities, identifying solutions, implementing projects, and keeping this work going long-term. Climate investments from the public sector must be shaped and offered accordingly. Philanthropy must continue to be an active partner to fill gaps towards this broader goal.

We also know that climate and environmental justice ecosystems, centered around CBOs that organize residents,<sup>626</sup> build the power to make investments more equitable: pushing for initiatives like J40 to secure resources for the places with greatest needs; shaping program guidelines to ensure racial justice, labor, and health equity are integrated; pushing back against harmful investments and false solutions; conducting external evaluations to keep public agencies and funders accountable, and more. This “ecosystem” has certainly contributed to CCI’s equity outcomes, and such power building is required to reverse decades of disinvestment and harm in frontline communities. This ecosystem requires the skills and capacities of many organizations but must be centered around organizing and base-building. We must continue supporting these efforts which improve the quality and outcomes of public climate dollars. Philanthropy can play an important role here through long-term, flexible, and patient funding that allows for leadership development, skills-building, and sustained capacity to do this work.



While the impacts of climate change are visible daily and our actions must be swift and strategic, we must simultaneously work to address the outcomes of racialized disinvestment and harm over centuries. Public dollars to address climate change must be leveraged to support the arc towards justice—to build community power which will serve as the vanguard and most precious resource towards charting a just and liveable future.

# APPENDIX A. LIST OF ALL CCI PROGRAMS

Administering Agency	Program “Buckets”	Subprogram	Cumulative Funding Status (\$M)		Benefiting Priority Populations <sup>30</sup>		Implemented Projects	
			Allocated	Implemented	(\$M)	%	GHG Reduction (1,000 MTCO <sub>2</sub> e)	Cost per GHG (\$/MTCO <sub>2</sub> e)
California Strategic Growth Council	Affordable Housing and Sustainable Communities	Affordable Housing and Sustainable Communities Program	\$3,276.20	\$1,512.40	\$1,247.40	83%	2,816	\$537
California Department of Food and Agriculture	Agriculture / Food Production	Dairy Digester Research and Development Program	289.1 (part)	\$195.30	\$130.10	67%	21,024	\$9
California Department of Food and Agriculture	Agriculture / Food Production	Technical Assistance Program	\$4.40	\$4.40	\$2.40	54%	–**	–
California Department of Food and Agriculture	Agriculture / Food Production	Alternative Manure Management Program	289.1 (part)	\$68.20	\$7.40	11%	1,100	\$62
California Department of Food and Agriculture	Agriculture / Food Production	Healthy Soils Program	\$65.50	\$54.00	\$25.90	48%	504	\$107
California Department of Food and Agriculture	Agriculture / Food Production	Renewable and Alternative Fuels	\$3.00	\$3.00	\$0	0%	–**	–
California Department of Food and Agriculture	Agriculture / Food Production	State Water Efficiency and Enhancement Program	\$63.10	\$61.80	\$22.90	37%	744	\$83
California Air Resources Board	Agriculture / Food Production	Fluorinated Gases Emission Reduction Incentives	\$11.00	\$1.00	\$0	0%	37	\$27

California Energy Commission	Agriculture / Food Production	Food Production Investment Program	\$124.00	\$107.70	\$89.30	83%	2,783	\$39
California Air Resources Board	Agriculture / Food Production	Funding Agricultural Replacement Measures for Emission Reductions	\$419.10	\$276.20	\$191.20	72%	181	\$1,529
California Energy Commission	Agriculture / Food Production	Renewable Energy for Agriculture Program	\$10.00	\$9.50	\$1.40	15%	127	\$75
California Air Resources Board	Air Quality	Community Air Grants	\$45.00	\$24.70	\$23.40	95%	–**	–
California Air Resources Board	Air Quality	AB 617 Implementation	\$140.00	\$40.00	TBD	TBD	–**	–
California Air Resources Board	Air Quality	Community Air Protection Incentives	\$1164.00	\$494.40	\$409.40	94%	232	\$2,129
California Air Resources Board	Air Quality	Prescribed Fire and Smoke Monitoring Program	\$4.00	\$3.90	\$0.00	0%	–**	–
California Air Resources Board	Air Quality	Woodsmoke Reduction	\$18.00	\$7.80	\$6.00	86%	98	\$79
San Francisco Bay Conservation and Development Commission	Climate Adaptation	Climate Resilience Planning	\$8.30	\$7.30	\$0	0%	–**	–
California Wildlife Conservation Board	Climate Adaptation	Climate Adaptation and Resiliency Program	\$20.00	\$16.50	\$5.90	36%	130	\$127
California Strategic Growth Council	Climate Adaptation	Climate Change Research Program	\$36.50	\$31.90	\$0	0%	–**	–
California State Coastal Conservancy	Climate Adaptation	Climate Ready Program	\$124.40	\$6.70	\$4.10	62%	5	\$1,454
California Coastal Commission	Climate Adaptation	Coastal Resilience Planning	\$6.00	\$2.10	\$1.20	58%	–**	–
California Department of Forestry and Fire Protection	Fire / Forestry / Greening	Fire Prevention Program	\$348.30	\$254.10	\$175.60	69%	–**	–
California Department of Forestry and Fire Protection	Fire / Forestry / Greening	Community Fire Planning and Preparedness	\$7.50	\$7.50	\$6.20	83%	–**	–
California Department of Forestry and Fire Protection	Fire / Forestry / Greening	Wildfire Prevention Grants Program	\$418.40	\$294.60	\$147.70	50%	–**	–
California Department of Forestry and Fire Protection	Fire / Forestry / Greening	Forest Carbon Plan Implementation	\$164.50	\$84.90	\$14.50	17%	13	\$6,767
California Department of Forestry and Fire Protection	Fire / Forestry / Greening	Forest Health Research	\$20.00	\$20.00	\$3.70	19%	–**	–
California Department of Forestry and Fire Protection	Fire / Forestry / Greening	Forest Health Program	\$602.70	\$461.20	\$183.90	40%	18,990	\$24
California Natural Resources Agency	Fire / Forestry / Greening	Regional Forest and Fire Capacity	\$20.00	\$6.20	\$2.20	37%	–**	–
California Department of Forestry and Fire Protection	Fire / Forestry / Greening	Urban and Community Forestry Program	\$74.80	\$74.80	\$71.60	96%	479	\$156
California Natural Resources Agency	Fire / Forestry / Greening	Urban Greening Program	\$156.50	\$144.90	\$137.30	95%	55	\$2,614

California Governor's Office of Emergency Services	Fire / Forestry / Greening	Wildfire Response and Readiness*	\$33.50	\$4.60	\$0	0%	–**	–
California Governor's Office of Emergency Services	Fire / Forestry / Greening	Fire Engines and Maintenance	\$28.50	\$26.50	\$0	0%	–**	–
California High-Speed Rail Authority	High Speed Rail	High-Speed Rail Project	–	–	–	–	–	–
California Strategic Growth Council	Land Restoration / Conservation	Sustainable Agricultural Lands Conservation Program	\$358.70	\$90.20	\$4.30	5%	10,882	\$8
California Department of Fish and Wildlife	Land Restoration / Conservation	Wetlands and Watershed Restoration	\$45.70	\$39.20	\$20.50	52%	1,000	\$39
California Energy Commission	Low Carbon Fuels Production	Low-Carbon Fuel Production	\$12.50	\$12.50	\$11.70	94%	452	\$28
California Department of Community Services and Development	<b>Low-Income Weatherization / RE</b>	Community Solar	\$2.20	\$2.00	\$2.00	100%	10	\$204
California Department of Community Services and Development	<b>Low-Income Weatherization / RE</b>	Farmworker Housing Single-Family Energy Efficiency and Solar Photovoltaics	\$12.40	\$12.20	\$10.40	100%	19	\$656
California Department of Community Services and Development	<b>Low-Income Weatherization / RE</b>	Multi-Family Energy Efficiency and Renewables	\$78.90	\$56.30	\$43.50	100%	205	\$274
California Department of Community Services and Development	<b>Low-Income Weatherization / RE</b>	Single-Family Energy Efficiency and Solar Photovoltaics	\$70.00	\$60.80	\$60.70	100%	216	\$281
California Department of Community Services and Development	<b>Low-Income Weatherization / RE</b>	Single-Family Solar Photovoltaics	\$51.00	\$51.00	\$44.10	100%	134	\$382
California Strategic Growth Council	Technical Assistance	Technical Assistance Program	\$13.50	\$8.70	\$8.70	100%	–**	–
California Workforce Development Board	Training / Workforce	Low-Carbon Economy Workforce	\$41.50	\$24.40	\$24.40	100%	–**	–
California Conservation Corps	Training / Workforce	Training and Workforce Development Program	\$83.50	\$39.40	\$30.30	77%	280	\$141
California Environmental Protection Agency	Training / Workforce	Transition to a Carbon-Neutral Economy	\$2.60	\$2.60	\$0	0%	–**	–
California Strategic Growth Council	Transformative Climate Communities	Transformative Climate Communities Program	\$241.30	\$207.80	\$192.60	94%	150	\$1,390
California Department of Transportation	Transportation	Active Transportation Program	\$10.00	\$10.00	\$10.00	100%	<1	\$163,934
California Air Resources Board	Transportation	Advanced Technology Freight Demonstration Projects	\$117.20	\$117.20	\$117.20	100%	26	\$4,466
California Air Resources Board	Transportation	Agricultural Worker Vanpools	\$6.00	\$6.00	\$6.00	100%	7	\$842
California Air Resources Board	Transportation	Clean Cars 4 All	\$217.00	\$103.60	\$92.90	100%	94	\$1,097

California Air Resources Board	Transportation	Clean Mobility in Schools Project	\$34.60	\$24.60	\$24.60	100%	10	\$2,453
California Air Resources Board	Transportation	Clean Mobility Options	\$55.20	\$30.20	\$30.20	100%	11	\$2,729
California Air Resources Board	Transportation	Clean Off-Road Equipment Voucher Incentive Project	\$425.40	\$55.90	\$42.40	82%	28	\$1,992
California Air Resources Board	Transportation	Clean Truck and Bus Vouchers (HVIP)	\$486.40	\$262.80	\$155.10	60%	987	\$266
California Air Resources Board	Transportation	Clean Vehicle Rebate Project	\$1,046.10	\$997.80	\$307.30	31%	5,171	\$193
California Air Resources Board	Transportation	Zero and Near Zero-Emission Freight Facilities	\$148.70	\$148.70	\$148.70	100%	50	\$2,997
California Air Resources Board	Transportation	Zero-Emission Truck and Bus Pilot Projects	\$85.00	\$82.80	\$64.50	78%	107	\$778
California Air Resources Board	Transportation	Financing Assistance for Lower-Income Consumers	\$57.40	\$22.80	\$18.30	85%	26	\$873
California Air Resources Board	Transportation	Outreach, Education, and Awareness	\$10.00	\$10.00	\$10.00	100%	—**	—
California Air Resources Board	Transportation	Rural School Bus Pilot Projects	\$61.60	\$52.80	\$27.60	53%	49	\$1,082
California Air Resources Board	Transportation	Sustainable Transportation Equity Project	\$44.50	\$28.20	\$28.20	100%	4	\$6,400
California Department of Transportation	Transportation	Low-Carbon Transit Operations Program	\$943.20	\$776.80	\$748.80	96%	6,327	\$123
California State Transportation Agency	Transportation	Transit and Intercity Rail Capital Program	\$1,998.70	\$1,340.80	\$1,292.80	96%	17,869	\$75
California Department of Resources Recycling and Recovery	Waste Diversion	Community Composting for Green Spaces Grant	\$1.50	\$1.00	\$0.70	74%	2	\$467
California Department of Resources Recycling and Recovery	Waste Diversion	Food Waste Prevention and Rescue Grants	\$24.10	\$23.70	\$22.90	97%	569	\$42
California Department of Resources Recycling and Recovery	Waste Diversion	Organics and Recycling Manufacturing Loans	\$9.20	\$7.70	\$0.80	11%	772	\$10
California Department of Resources Recycling and Recovery	Waste Diversion	Organics Grants	\$135.40	\$69.50	\$54.00	78%	1,305	\$53
California Department of Resources Recycling and Recovery	Waste Diversion	Recycled Fiber, Plastic, and Glass Grant	\$36.50	\$33.50	\$24.80	74%	642	\$52
California Department of Resources Recycling and Recovery	Waste Diversion	Reuse Grant Program	\$2.00	\$2.00	\$1.50	75%	1	\$3,613
California Department of Resources Recycling and Recovery	Waste Diversion	SB 1383 Local Assistance Grants	\$240.00	\$50.60	\$0	0%	—**	—
California State Water Resources Control Board	Water	Safe and Affordable Drinking Water Fund	\$327.80	\$105.90	\$104.30	98%	<0	—
California Department of Water Resources	Water	State Water Project: Turbines	\$20.00	\$20.00	\$0	0%	37	\$542

California Department of Water Resources	Water	Water-Energy Grant Program	\$48.00	\$37.10	\$23.30	63%	387	\$96
California Ocean Protection Council	Water	Sea Level Rise	\$38.00					
California Energy Commission	Training / Workforce	IDEAL ZEV Workforce Pilot	\$1.00	\$1.00	\$1.00	100%	—**	—
California Energy Commission		California Schools Healthy Air, Plumbing, and Efficiency Program	\$20.00					
California Air Resources Board	Air Quality	Methane Satellites	\$105.00					
California Air Resources Board	Air Quality	Community Air Monitoring	\$30.00					
<b>Total</b>			<b>\$15,503.30</b>	<b>\$9,337.70</b>	<b>\$6,721.50</b>	<b>73%</b>	<b>97,142</b>	<b>\$96</b>

Source: California Air Resources Board. “2023 Annual Report Cap-and-Trade Auction Proceeds.” Sacramento, CA: California Air Resources Board, 2023.

[https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/ccl\\_annual\\_report\\_2023.pdf](https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/ccl_annual_report_2023.pdf). Note: Program

“Buckets” are USC ERI’s custom grouping of the programs.

\* Pending additional information on expenditures.

\*\*These programs do not have a quantified GHG emission benefit

# APPENDIX B. ECIPS WITH SAMPLE METRICS

Equitable Climate Investment Principles	Sample Metrics
<b>Goals</b>	
<b>1. Drive with equity from the start, leading with race-conscious solutions that center the most impacted communities.</b>	<p>1. Program or affiliated guidelines define equity.</p> <p>2. Programs or investments set equity-focused goals and/or targets to ensure that communities and populations with the greatest needs can equitably participate and benefit. (e.g., set-asides for disadvantaged communities; set-asides for small fleet operators; targets for hiring Disadvantaged Workers).</p> <p>3. Investments acknowledge and build race-conscious solutions into the initiative to the extent legally allowable (e.g., Identifying and removing barriers for historically disadvantaged communities in accessing opportunities; tracking demographic information).</p> <p>4. State builds enduring racial equity capacity within public agencies through actions like establishing permanent offices staffed with racial equity practitioners; providing racial equity education to staff on frameworks and tools; and anchoring racial equity practices consistently and with continuity.</p>
<b>Process</b>	



2. Center the agency and stated needs of EJ communities, Tribal Nations, and other communities (such as Disadvantaged Unincorporated Communities) that have been sacrificed or underserved.	<p>1. Dialogue is conducted, and over time, permanent, trusting, and sustainable lines of communication are established between funders and EJ communities, Tribal Nations, and other marginalized communities to understand communities' priorities, needs, and the ways in which they would like to receive and utilize available resources.</p> <p>2. Funding and projects are designed to ensure they address communities' needs and desires—both in project types and processes—in addition to achieving GHG emissions.</p> <p>3. Unwanted projects with community pushback are not funded.</p>
3. Minimize burdens and barriers for priority groups in accessing and utilizing resources.	<p>1. Investments are made while minimizing burdens and barriers to participation by priority communities (e.g., administrative time, cost, capacity, technical barriers).</p> <p>2. Technical assistance is offered to community groups and local governments to level the playing field for accessing resources.</p> <p>3. Payment structures allow priority communities to utilize resources without undue burdens (e.g., through advance pay, milestone payment structures).</p> <p>4. Allocation-based funding guarantees funding to potential users.</p> <p>5. Program administrators lead and integrate across silos to ensure that investments across a portfolio are cohesive and user-friendly.</p>
4. Invest in community organizing, leadership, and capacity building—before, during, and after climate investments are made—to build long-term community power	<p>1. Local organizing, leadership development, and capacity building among community groups are supported and funded.</p> <p>2. Local relationship and network building is supported and funded.</p> <p>3. Collective governance approaches are supported.</p> <p>4. Technical assistance that allows community groups and local governments to build long-term skills is supported and funded.</p> <p>5. Opportunities and resources for continued community work beyond an initial investment are identified and supported.</p>
<b>Outcomes</b>	
5. Produce desired, thoughtfully coordinated, multi-benefit outcomes for communities	<p>1. Investments provide desired benefits to communities.</p> <p>2. Investments produce multi-benefit outcomes that center not just greenhouse gas emissions reductions through one intervention but considers all other ways in which the investment can advance pressing social concerns like health, housing, worker justice, climate adaptation needs, immigrant integration, and more.</p> <p>3. Program administrators lead and integrate across silos to ensure that investments in a region are coordinated and driven by community-identified needs and desires.</p>
6. Make reductions in local pollution burden a co-equal goal and outcome to decreasing GHGs	<p>1. Investments contribute to measurable reductions in local pollution burden (or do not exacerbate existing burdens).</p>

7. End the use of all fossil fuels without investing in transition strategies that perpetuate harms or cause new harms to EJ communities	<ul style="list-style-type: none"> <li>1. Investments that contribute to continued fossil fuel reliance are not funded.</li> <li>2. Investments in transition strategies that may cause new harms to EJ communities are not funded.</li> </ul>
8. Advance health equity outcomes and at minimum, do not create more harm	<ul style="list-style-type: none"> <li>1. Concrete measures that help advance health equity outcomes are integrated into investments at every opportunity.</li> </ul>
9. Build wealth in EJ communities, including through high road jobs creation, that can help close the racial wealth gap; at minimum, do not perpetuate economic harms or inequities.	<ul style="list-style-type: none"> <li>1. High road jobs opportunities focused on disadvantaged workers and businesses are created through targeted hiring and workforce development efforts.</li> <li>2. Opportunities for low-income households and communities to own and operate assets, (e.g., community solar, affordable home ownership, electric vehicles) are created.</li> <li>3. Potential adverse economic outcomes such as gentrification are identified, along with strategies to avoid or mitigate these effects.</li> </ul>
<b>Evaluation</b>	
10. Conduct regular equity analyses to ensure transparency and accountability, with a focus on understanding benefits and impacts on communities.	<ul style="list-style-type: none"> <li>1. Equity metrics are established (e.g., tangible economic benefits reaching disadvantaged households, whether community-priority desires are being met).</li> <li>2. Equity metrics are tracked and fed into continuous program improvements.</li> <li>3. Equity evaluation costs are built into program budget.</li> <li>4. Databases are structured to allow geographic analyses, i.e., what projects and benefits reached a particular city or community.</li> <li>5. Accountability structures are in place to ensure that desired benefits reach communities and that feedback is iteratively integrated to improve programs.</li> </ul>

# APPENDIX C. ADDITIONAL ANALYSIS OF CCI DETAILED IMPLEMENTED PROJECT DATASET

**Figure C-1: GGRF Dollars Implemented Per Capita by County**

GGRF Dollars Implemented Per Capita by County						
County	GGRF to Total Population	GGRF to BIPOC Population	Priority Population \$ to Total Population	Priority Population \$ to BIPOC Population	DAC \$ to Total Population	DAC \$ to BIPOC Population
Alameda County	\$460	\$671	\$384	\$560	\$254	\$370
Alpine County	\$2,851	\$6,071	\$672	\$1,431	\$-	\$-
Amador County	\$396	\$1,814	\$165	\$757	\$3	\$16
Butte County	\$427	\$1,522	\$269	\$961	\$31	\$110
Calaveras County	\$697	\$3,656	\$292	\$1,532	\$3	\$16

Colusa County	\$646	\$999	\$33	\$50	\$4	\$6
Contra Costa County	\$159	\$283	\$107	\$191	\$52	\$92
Del Norte County	\$84	\$221	\$33	\$86	\$-	\$-
El Dorado County	\$307	\$1,383	\$70	\$315	\$1	\$2
Fresno County	\$426	\$604	\$366	\$519	\$284	\$402
Glenn County	\$472	\$972	\$209	\$431	\$40	\$82
Humboldt County	\$707	\$2,755	\$550	\$2,145	\$1	\$5
Imperial County	\$293	\$328	\$197	\$220	\$95	\$107
Inyo County	\$287	\$757	\$224	\$591	\$0	\$1
Kern County	\$250	\$380	\$187	\$283	\$115	\$175
Kings County	\$492	\$726	\$207	\$306	\$177	\$262
Lake County	\$500	\$1,697	\$403	\$1,368	\$-	\$-
Lassen County	\$1,104	\$3,193	\$348	\$1,008	\$-	\$-
Los Angeles County	\$200	\$271	\$175	\$237	\$137	\$186
Madera County	\$562	\$854	\$490	\$743	\$337	\$512
Marin County	\$140	\$485	\$49	\$171	\$8	\$29
Mariposa County	\$1,661	\$8,304	\$864	\$4,317	\$4	\$18
Mendocino County	\$554	\$1,591	\$337	\$967	\$3	\$10
Merced County	\$651	\$900	\$458	\$632	\$427	\$591
Modoc County	\$1,880	\$8,427	\$1,662	\$7,452	\$-	\$-
Mono County	\$382	\$1,094	\$107	\$307	\$6	\$17
Monterey County	\$173	\$247	\$81	\$115	\$47	\$67
Napa County	\$325	\$683	\$41	\$86	\$5	\$10
Nevada County	\$512	\$3,447	\$111	\$745	\$1	\$5
Orange County	\$110	\$185	\$67	\$113	\$31	\$53
Placer County	\$242	\$883	\$56	\$204	\$6	\$21
Plumas County	\$2,111	\$12,523	\$979	\$5,809	\$59	\$350
Riverside County	\$131	\$202	\$99	\$153	\$66	\$102
Sacramento County	\$307	\$555	\$234	\$424	\$156	\$282
San Benito County	\$47	\$71	\$13	\$20	\$3	\$5
San Bernardino County	\$142	\$199	\$116	\$163	\$92	\$129
San Diego County	\$132	\$243	\$97	\$179	\$63	\$115
San Francisco County	\$514	\$864	\$398	\$669	\$196	\$330
San Joaquin County	\$271	\$397	\$219	\$321	\$193	\$283
San Luis Obispo County	\$184	\$591	\$64	\$205	\$15	\$49
San Mateo County	\$202	\$332	\$150	\$248	\$71	\$117
Santa Barbara County	\$297	\$535	\$235	\$423	\$56	\$100
Santa Clara County	\$158	\$231	\$80	\$117	\$37	\$54
Santa Cruz County	\$157	\$367	\$55	\$128	\$20	\$47
Shasta County	\$844	\$4,178	\$394	\$1,951	\$2	\$10
Sierra County	\$1,047	\$8,424	\$378	\$3,041	\$1	\$9
Siskiyou County	\$1,361	\$5,697	\$875	\$3,663	\$-	\$-
Solano County	\$98	\$158	\$50	\$81	\$33	\$53
Sonoma County	\$168	\$456	\$50	\$137	\$15	\$40
Stanislaus County	\$334	\$575	\$268	\$461	\$248	\$427

Sutter County	\$136	\$253	\$32	\$60	\$7	\$12
Tehama County	\$463	\$1,461	\$415	\$1,312	\$24	\$77
Total	\$233	\$371	\$171	\$272	\$109	\$173
Trinity County	\$1,505	\$8,409	\$1,320	\$7,373	\$-	\$-
Tulare County	\$588	\$822	\$484	\$677	\$428	\$599
Tuolumne County	\$493	\$2,491	\$251	\$1,267	\$12	\$61
Ventura County	\$135	\$246	\$106	\$195	\$43	\$79
Yolo County	\$436	\$818	\$166	\$312	\$67	\$125
Yuba County	\$231	\$516	\$127	\$284	\$30	\$66

*Sources:* USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); U.S. Census Bureau, “American Community Survey (ACS) 2015-2019”.

Note: GGRF amount refers to the \$9.2 billion that has been implemented as of November 2022 and excludes the High-Speed Rail Program as well as intermediary administrative expenses.

## Figure C-2: CCI Implemented Project Funding by County

	Total Project Costs (including admin)	Total Program GGRF Funding (excluding admin)	Priority Population Funding	Benefit and within DAC \$
Alameda County	\$7,078,035,864	\$762,268,967	\$636,812,267	\$420,866,585
Alpine County	\$3,864,218	\$2,962,638	\$698,504	\$ -
Amador County	\$86,273,444	\$15,227,798	\$6,350,756	\$134,013
Butte County	\$142,056,522	\$96,324,365	\$60,830,802	\$6,966,322
Calaveras County	\$38,044,133	\$31,725,139	\$13,291,702	\$142,465
Colusa County	\$16,505,542	\$13,857,659	\$697,505	\$77,546
Contra Costa County	\$1,168,237,056	\$181,402,316	\$122,587,929	\$59,142,263
Del Norte County	\$3,109,914	\$2,308,282	\$899,184	\$ -
El Dorado County	\$91,401,521	\$57,849,511	\$13,166,570	\$101,252
Fresno County	\$1,456,810,810	\$419,507,554	\$360,655,143	\$279,674,781
Glenn County	\$17,659,020	\$13,201,833	\$5,852,803	\$1,118,562
Humboldt County	\$218,233,702	\$96,053,199	\$74,795,336	\$185,447
Imperial County	\$124,022,660	\$52,902,820	\$35,519,402	\$17,229,860
Inyo County	\$5,818,713	\$5,153,238	\$4,020,517	\$7,200
Kern County	\$1,099,314,886	\$221,905,121	\$165,607,991	\$102,108,721
Kings County	\$157,337,233	\$74,205,273	\$31,250,014	\$26,739,818
Lake County	\$47,350,784	\$32,128,799	\$25,898,673	\$ -
Lassen County	\$43,396,357	\$34,018,869	\$10,737,461	\$ -
Los Angeles County	\$66,348,284,382	\$2,018,434,600	\$1,761,062,873	\$1,380,092,333
Madera County	\$747,326,358	\$87,382,433	\$76,090,064	\$52,373,466
Marin County	\$152,500,936	\$36,351,091	\$12,852,207	\$2,172,249
Mariposa County	\$39,876,108	\$28,939,687	\$15,045,600	\$64,169
Mendocino County	\$66,060,744	\$48,314,944	\$29,370,113	\$300,833
Merced County	\$353,163,011	\$176,650,847	\$124,161,784	\$115,977,242
Modoc County	\$27,765,411	\$16,744,616	\$14,807,434	\$ -
Mono County	\$9,895,309	\$5,472,755	\$1,537,623	\$83,333
Monterey County	\$127,337,953	\$75,019,641	\$34,977,592	\$20,388,843
Napa County	\$102,294,234	\$45,386,816	\$5,742,502	\$655,781
Nevada County	\$86,726,982	\$50,782,578	\$10,975,475	\$73,248
Orange County	\$1,810,478,770	\$348,731,480	\$213,435,522	\$99,158,695
Placer County	\$169,471,422	\$93,105,465	\$21,510,361	\$2,193,261

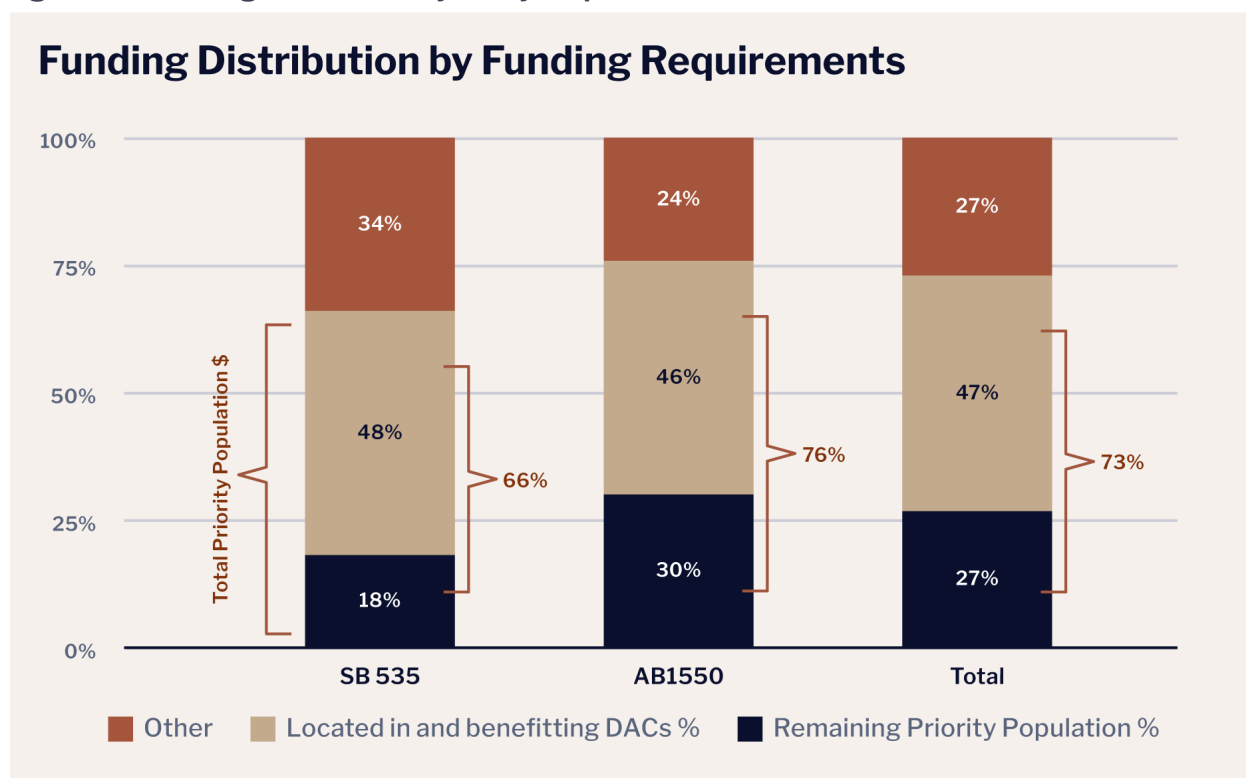
Plumas County	\$52,029,978	\$39,397,580	\$18,274,433	\$1,099,801
Riverside County	\$690,884,878	\$315,262,427	\$238,707,652	\$159,508,004
Sacramento County	\$5,537,611,861	\$467,778,854	\$357,314,435	\$237,916,321
San Benito County	\$5,663,388	\$2,813,656	\$808,784	\$185,676
San Bernardino County	\$1,105,629,642	\$305,131,458	\$250,216,051	\$197,807,588
San Diego County	\$4,850,844,952	\$438,994,777	\$322,686,483	\$208,249,266
San Francisco County	\$5,106,130,105	\$449,830,965	\$348,196,333	\$171,839,716
San Joaquin County	\$1,086,955,401	\$201,105,619	\$162,653,747	\$143,053,888
San Luis Obispo County	\$90,654,704	\$51,841,693	\$17,988,659	\$4,311,308
San Mateo County	\$2,404,432,843	\$154,913,955	\$115,455,889	\$54,646,584
Santa Barbara County	\$804,807,940	\$132,024,205	\$104,374,166	\$24,761,534
Santa Clara County	\$4,599,909,482	\$304,309,882	\$154,103,882	\$71,246,758
Santa Cruz County	\$80,109,650	\$42,988,499	\$14,983,834	\$5,520,533
Shasta County	\$221,459,628	\$151,254,614	\$70,616,630	\$345,087
Sierra County	\$4,388,723	\$3,184,291	\$1,149,661	\$3,500
Siskiyou County	\$69,618,060	\$59,179,916	\$38,044,726	\$ -
Solano County	\$197,610,787	\$43,237,804	\$22,072,304	\$14,591,954
Sonoma County	\$297,925,183	\$83,880,020	\$25,157,165	\$7,348,398
Stanislaus County	\$416,258,634	\$181,632,875	\$145,732,175	\$134,978,107
Sutter County	\$20,240,320	\$13,086,257	\$3,090,446	\$644,387
Tehama County	\$36,207,586	\$29,562,557	\$26,541,722	\$1,565,479
Trinity County	\$25,144,966	\$19,112,778	\$16,757,713	\$ -
Tulare County	\$584,188,055	\$271,561,701	\$223,417,469	\$197,874,112
Tuolumne County	\$31,662,169	\$26,668,215	\$13,565,706	\$652,630
Ventura County	\$2,319,548,733	\$113,963,507	\$90,200,328	\$36,597,189
Yolo County	\$182,593,923	\$94,769,222	\$36,156,535	\$14,534,272
Yuba County	\$69,340,626	\$17,658,909	\$9,710,516	\$2,265,661
Total	\$112,730,506,211	\$9,159,466,569	\$6,719,219,149	\$4,279,576,042



*Sources:* USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); U.S. Census Bureau, “American Community Survey (ACS) 2015-2019”.

*Note:* GGRF amount refers to the \$9.2 billion that has been implemented as of November 2022 and excludes the High-Speed Rail Program as well as intermediary administrative expenses.

**Figure C-3: Funding Distribution by Policy Requirements**



Sources: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); U.S. Census Bureau, "American Community Survey (ACS) 2015-2019".

Note: GGRF amount refers to the \$9.2 billion that has been implemented as of November 2022 and excludes the High-Speed Rail Program as well as intermediary administrative expenses.

**Figure C-4: SB 535 Project Funding by Benefit Location**

	SB 535	SB 535
Located in and benefitting DAC	48%	\$1,099,094,387
Located Outside of and benefitting DAC	18%	\$403,240,496
Benefiting Other	34%	\$780,537,794
<b>Total Program GGRF Funding</b>	<b>100%</b>	<b>\$2,282,872,677</b>

Sources: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); U.S. Census Bureau, "American Community Survey (ACS) 2015-2019".

Note: GGRF amount refers to the \$9.2 billion that has been implemented as of November 2022 and excludes the High-Speed Rail Program as well as intermediary administrative expenses.

**Figure C-5: AB 1550 Project Funding by Benefit Location**

	<b>AB 1550</b>	<b>AB 1550</b>
Locating in and benefiting DAC	46%	\$3,180,481,655
Located in and benefiting low-income communities and households	24%	\$1,647,520,865
Located in and benefiting household communities and households within a 1/2 mile of a DAC	6%	\$388,881,746
Benefiting other areas	24%	\$1,659,709,626
<b>Total Program GGRF Funding</b>	<b>100%</b>	<b>\$6,876,593,892</b>

Source: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022)

Note: GGRF amount refers to the \$9.2 billion that has been implemented as of November 2022 and excludes the High-Speed Rail Program as well as intermediary administrative expenses.

## Figure C-6: Distribution of DAC Tracts by County

County	# of Tracts	% of all DAC tracts
Alameda County	46	2%
Butte County	2	0%
Contra Costa County	37	2%
Fresno County	124	5%
Glenn County	1	0%
Imperial County	20	1%
Kern County	77	3%
Kings County	14	1%
Los Angeles County	1173	51%
Madera County	15	1%
Merced County	41	2%
Monterey County	4	0%
Orange County	95	4%
Riverside County	105	5%
Sacramento County	57	2%
San Bernardino County	169	7%
San Diego County	56	2%
San Francisco County	17	1%
San Joaquin County	75	3%
San Mateo County	9	0%
Santa Barbara County	2	0%
Santa Clara County	22	1%
Santa Cruz County	2	0%

Solano County	13	1%
Sonoma County	2	0%
Stanislaus County	62	3%
Sutter County	5	0%
Tulare County	47	2%
Ventura County	11	0%
Yolo County	4	0%
Yuba County	3	0%
<b>Total DAC tracts</b>	<b>2310</b>	<b>100%</b>

*Sources:* USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); U.S. Census Bureau, “American Community Survey (ACS) 2015-2019”.

Note: Counties without DAC tracks : Alpine, Amador, Calaveras, Colusa, Del Norte, El Dorado, Humboldt, Inyo, Lake, Lassen, Marin, Mariposa, Mendocino, Modoc, Mono, Napa, Nevada, Placer, Plumas, San Benito, San Luis Obispo, Shasta, Sierra, Siskiyou, Tehama, Trinity, Tuolumne. Note: GGRF amount refers to the \$9.2 billion that has been implemented as of November 2022 and excludes the High-Speed Rail Program as well as intermediary administrative expenses.

## BAY AREA TABLES

**FIGURE C-7 # OF DAC TRACTS BY NINE-COUNTY BAY AREA, LOS ANGELES COUNTY, AND CALIFORNIA**

Region	# of tracts	%
Nine-county Bay Area	146	6%
Los Angeles County	1,173	51%
Other	991	43%
<b>Total</b>	<b>2,310</b>	<b>100%</b>

Sources: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); U.S. Census Bureau, "American Community Survey (ACS) 2015-2019".

Note: GGRF amount refers to the \$9.2 billion that has been implemented as of November 2022 and excludes the High-Speed Rail Program as well as intermediary administrative expenses.

## FIGURE C-8 POPULATION BY NINE-COUNTY BAY AREA, LOS ANGELES COUNTY, AND CALIFORNIA

Region	Population	%
Nine-county Bay Area	7,710,026	20%
Los Angeles County	10,081,570	26%
Other	21,491,901	55%
<b>Total</b>	<b>39,283,497</b>	<b>100%</b>

Sources: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); U.S. Census Bureau, "American Community Survey (ACS) 2015-2019".

Note: GGRF amount refers to the \$9.2 billion that has been implemented as of November 2022 and excludes the High-Speed Rail Program as well as intermediary administrative expenses.

## FIGURE C-9% OF REGION POPULATION LOCATED IN DAC

Region	Not in DAC tract	In DAC Tract
Other	75%	25%
Nine-county Bay Area	91%	9%
Los Angeles County	50%	50%

Sources: USC Equity Research Institute analysis of California Air Resource Board of Detailed Implemented Projects Dataset (Project Data as of November 30, 2022); U.S. Census Bureau, "American Community Survey (ACS) 2015-2019".

Note: GGRF amount refers to the \$9.2 billion that has been implemented as of November 2022 and excludes the High-Speed Rail Program as well as intermediary administrative expenses.

# APPENDIX D. INTERVIEWEES AND INFORMANTS

## GENERAL

Alexandra Gallo, US Environmental Protection Agency

Amee Raval, Asian Pacific Environmental Network

Bahram Fazeli, Communities for a Better Environment

Brent Newell, Law Office of Brent J. Newell

Chris Chavez, Coalition for Clean Air

Ena Lupine, Strategic Growth Council

Hector Huezo, Jobs to Move America

Kevin Hamilton, Central California Asthma Collaborative

Kimberly McCoy, Central California Asthma Collaborative

Kirin Kumar, Strategic Growth Council

Luis Olmedo, Comite Civico del Valle

Paul English, Public Health Institute



Phoebe Seaton, Leadership Counsel for Justice and Accountability

Raquel Dominguez, Earthworks

Rachel Morello-Frosch, UC Berkeley Department of Environmental Science, Policy and Management and the School of Public Health

Veronica Garibay, Leadership Counsel for Justice and Accountability

Zach Lou, California Green New Deal Coalition

### **California Air Resources Board (CARB)**

Mario Cruz

Alex Stockton

Bailey Smith

Nicole Enright

Anna Scodel

Valerie Carranza

### **Gathering of EJ Leaders, Fall 2022**

Angelo Logan, Liberty Hill Foundation

Dillon Delvo, Little Manila Rising

Jonathan Pruitt, California Environmental Justice Alliance

Jose Calderon, Latino and Latina Roundtable of the San Gabriel and Pomona Valley

Lina Mira, Latino and Latina Roundtable of the San Gabriel and Pomona Valley

Lucas Zucker, Central Coast Alliance United for a Sustainable Economy

Luis Olmedo, Komite Civico del Valle

Matt Holmes, Little Manila Rising

Rachel Morello-Frosch, UC Berkeley Department of Environmental Science, Policy and Management and the School of Public Health

Raquel Mason, California Environmental Justice Alliance

Tiffany Eng, California Environmental Justice Alliance

Veronica Garibay, Leadership Counsel for Justice and Accountability

## CASE STUDIES

### **Affordable Housing Sustainable Communities**

Enterprise Community Partners

Heritage Housing Partners

Many Mansions

National Community Renaissance

Self-Help Enterprises

Strategic Growth Council

Yurok Indian Housing Authority

### **Clean Truck and Bus Vouchers (HVIP)**

CALSTART

California Air Resources Board

Coalition for Clean Air

The Greenlining Institute

### **Community Air Protection Incentives (AB 617)**

AB 617 Community Steering Committee Member, Eastern Coachella Valley

California Air Resources Board

Communities for a New California Education Fund

UC Davis Environmental Health Science Center

Deborah Behles

Little Manila Rising

Valley Air

### **Community Solar Pilot**

Anza Electric Cooperative, Inc.

GRID Alternatives

Santa Rosa Band of Cahuilla Indians

### **Dairy Digester Research and Development Program (DDRDP)**

Association of Irrigated Residents

California Department of Food and Agriculture

Food & Water Watch

Law Office of Brent J. Newell

Leadership Counsel for Justice and Accountability

### **Forest Health Program**

California Department of Forestry and Fire Protection (CAL FIRE)

Hoopa Valley Tribe

Mid Klamath Watershed Council

Resource Conservation District of Greater San Diego County

Yuba Water Agency

Yurok Tribe

### **High Speed Rail**

California High Speed Rail Authority

Central California Environmental Justice Network

Central Valley Community Foundation

Chinatown Fresno Foundation

City of Fresno, Development & Resource Management Department

Strategic Growth Council

Transportation Solutions Defense and Education Fund (TRANSDEF)

### **Low Carbon Transit Operations Program (LCTOP)**

Caltrans

Monterey-Salinas Transit

Move LA

Sacramento Regional Transit District

San Joaquin Regional Transit District  
Strategic Growth Council  
Yolo Transportation District

### **Sustainable Agricultural Lands Conservation**

California Climate and Agriculture Network (CalCAN)  
California Department of Conservation Division of Land Resource Protection  
California Rangeland Trust  
Sequoia Riverlands Trust  
University of California Division of Agriculture and Natural Resources

### **Transformative Climate Communities**

Edge Collaborative  
Environmental Health Coalition  
The Greenlining Institute  
Little Manila Rising  
San Diego Foundation  
South Los Angeles Transit Empowerment Zone (SLATE-Z)  
Strategic Actions for a Just Economy (SAJE)  
Strategic Concepts in Organizing and Policy Education (SCOPE)  
Strategic Growth Council

## **COMMUNITY CONVERSATIONS**

### **Eastern Coachella Valley**

Anna Lisa Vargas, Communities for a New California Education Fund  
Mayte Ruiz Garcia, Communities for a New California Education Fund  
Rebecca Zaragoza, Leadership Counsel for Justice and Accountability  
Yunuen Ibarra, Líderes Campesinas

## **Oxnard**

Ana Rosa Rizo-Centino, Central Coast Climate Justice Network

Daniel Gonzalez, Future Leaders of America

Haley Ehlers, CFROG - Climate First: Replacing Oil & Gas

Ivan Vega, Future Leaders of America

Lucas Zucker, Central Coast Alliance United for a Sustainable Economy

Teresa Gomez, Californians for Pesticide Reform

## **Richmond**

Katt Ramos, Richmond Our Power Coalition

Najari Smith, Rich City Rides

Torm Nompraseurt, Asian Pacific Environmental Network



## APPENDIX E. TERMINOLOGY AND NOMENCLATURE

There is significant variation in how scholars and policymakers have identified and defined different “disadvantaged” communities in academia and the law, and these definitions have not always aligned with how those communities identify themselves. Words have consequences, and in the context of designing and analyzing climate justice initiatives, these terms are especially consequential.

In the past and in the present, language and nomenclature conventions have often reflected the underlying power of white supremacy. This terminology regularly casts marginalized communities in an overgeneralized or derogatory light, while at the same time being legally defined terms in statutes and guidelines. According to a recommendation document prepared by the California Department of Water and Power, the definition of “Disadvantaged Community” or DAC for example, has been present in state legislation since the late 1990s but has evolved further with the introduction of the CalEnviroScreen.<sup>627</sup> That report notes that Native American communities, for example, sometimes fall under this definition while also facing additional burdens regarding historical genocide and Tribal sovereignty. Although this sort of terminology was introduced to better direct State resources to communities with the most need, it has also produced significant challenges and confusion in the State.

Ultimately, our report sought to prioritize the use of asset-based language, while trying to be as accurate as possible to these underlying guidelines and programmatic definitions. Throughout the report, we use capitalized terms to refer to communities or populations defined within CCI programs, such as a Disadvantaged Community, Disadvantaged Workers, or Priority Populations, which are legally defined categories in State guidelines. At the same time, we also understand that capitalization in the English language often denotes dignity or importance and reflects underlying societal norms.<sup>628</sup> We attempt to capitalize instances of Tribal Nations, Tribal entities or organizations,

Native American, and Indigenous communities although source material may not. We also differentiate from some source material in our utilization of Latinx, rather than Latino, while recognizing the limitations of this broad term. Racial and ethnic data regarding benefits and impacts from environmental harm use State and community-based data that depend on the term Latino, which has been aptly criticized for invisibilizing Indigenous and Black members while also reifying harmful gender binaries.

Direct quotes from respondents and source material may differ from these decisions. We recognize that acknowledging this history is not enough, and ensuring communities are represented accurately and with dignity must be an ongoing and collaborative effort. For more information and resources on the history and debates around this terminology, more can be found from the UCLA American Indian Studies Center<sup>629</sup>, the State of California Native American Heritage Commission<sup>630</sup>, and the TransLatin@ Coalition<sup>631</sup>.



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