

Preliminary Report: Community Priorities for Equitable Building Decarbonization

By the Building Energy, Equity, and Power (BEEP) Coalition | Released March 1, 2022

This report summarizes key concerns, opportunities, and recommendations on equitable building decarbonization policy in California. The report is developed from direct input from residents and community organizations across California. The BEEP Coalition and its partners hosted five local equitable building decarbonization listening sessions across California in the San Joaquin Valley, East Coachella Valley, Los Angeles, and San Francisco Bay Area, engaging over 200 residents and community organizations in Spanish and English over the course of January and February 2022.

The BEEP Coalition is comprised of the Center on Race, Poverty, and the Environment; Central Valley Air Quality Coalition; the Greenlining Institute; Leadership Counsel for Justice & Accountability; Local Clean Energy Alliance; Physicians for Social Responsibility-Los Angeles; PODER; and Self-Help Enterprises. Supporting consultants include Common Spark Consulting, Environmental Justice Solutions, and Katie Valenzuela (a consultant with the Greenlining Institute).

The BEEP coalition's mission is to ensure low-income consumers and consumers of color benefit, and are not adversely impacted by, building decarbonization efforts in California. The recommendations below and work of the BEEP coalition overall specifically focuses on supporting people who are Black, indigenous, and people of color (BIPOC) who have historically been left behind by investments, and who are at greater risk for negative climate and health impacts.

Please note that we are intentionally using the term “building decarbonization” and not “building electrification.” We believe that there is not a one-size-fits-all solution to decarbonization and electrification efforts must be more than just replacing appliances. We are looking for holistic and equitable solutions that include emissions reductions, meaningful building improvements and protections for residents. The BEEP Coalition is calling for an intersectional approach that prevents further harm and ensures our communities benefit through increased resiliency.

California Must Incorporate and Center Energy Justice

Our energy system is incredibly complex. There are no two regions in California that experience energy the same way, so our approach to transitioning our energy system needs to create space for local leadership and community-based pilots. The work must be intersectional, looking at housing and affordability while making space for the ultimate transition to clean, distributed, reliable, localized power. Ultimately, we must center benefits on communities historically left behind.

The BEEP Coalition created these [Energy Justice Principles](#) to apply to this and other energy work.

Summary of Concerns and Recommendations

Across all the listening sessions in different parts of the state, common themes tie together the statewide equity concerns and opportunities for building decarbonization in California. A summary of these concerns and recommendations is in the table below. More detailed recommendations are in the body of the report.

<p>Equitable Process + Meaningful Engagement</p> <hr/> <p>Concern: Low-income communities and communities of color are often excluded from policy and programmatic policies on decarbonization, lack information on major projects and developments, and have difficult trusting programs that do not have community input from inception to evaluation.</p> <p>Recommendation: Dedicate sufficient time and provide sufficient funding to local groups to engage in outreach and community education, including funding for staff time from established community organizations, stipends for community member participation, and translation services.</p>
<p>Access + Education</p> <hr/> <p>Concern: Lack of culturally appropriate and multilingual educational efforts about building decarbonization risks and opportunities. Programs are not tailored or designed to meet multiple needs, oftentimes excluding low-income communities, immigrants, and communities of color.</p> <p>Recommendation: Fund local groups to build accessible and reliable programs that support outreach and education on building decarbonization. Embrace a flexible, phased approach to implementation.</p>
<p>Distributional Justice: Costs + Affordability</p> <hr/> <p>Concern: Cost presents a significant barrier to adoption. Many households cannot afford the transition, or are ineligible for incentives or funding currently available.</p> <p>Recommendation: Fully fund building decarbonization and debt relief programs for low-income communities and communities of color to reduce energy burdens and remove cost barriers. Energy costs should go down after projects are complete, and low-income households should not have to pay anything out of pocket. Educate ratepayers on cost impacts and best practices for energy use.</p>
<p>Renters' Rights + Protections</p> <hr/> <p>Concern: Majority of low-income Californians are renters, spending more than one-third of their income on rent and utility bills every month, and thus vulnerable to evictions and displacement. There is concern that renters will not access the programs, or will become more vulnerable when landlords pass down costs of decarbonization to renters by increasing rent and property value.</p> <p>Recommendation: Work with local tenant rights groups to embed renter safeguards in every building</p>

decarbonization policy and program, and clearly identify enforcement mechanisms and resources. Close loopholes in state law on this issue.

Regulated Affordable Housing

Concern: There is a lack of funding and staff capacity to plan, design, and pay for all-electric new construction or make decarbonizing retrofits in existing deed-restricted affordable housing buildings. Affordable housing providers also often face difficulty in navigating funding streams for all-electric developments and retrofits.

Recommendation: Provide funding for more training, education, technical assistance, and financial incentives (e.g. align Tax Credit Allocation Committee funding with state sustainability goals) for affordable housing providers to implement decarbonization in new and existing buildings.

Workforce Development + High-Road Jobs

Concern: Job quality of electrification and decarbonization work to-date is more reflective of a low-road vs high-road approach due to lack of focus on workforce development and high-quality job creation. Reductions in natural gas use and development will impact many union jobs.

Recommendation: Ensure job access for local and priority populations underrepresented in high-road construction jobs, such as through community workforce agreements. Include water efficiency in policy changes to facilitate meaningful job development in impacted sectors.

Holistic Upgrades: Health, Safety, + Resiliency

Concern: Many homes and apartments simultaneously need energy efficiency upgrades and other upgrades to accommodate building decarbonization technologies and to ensure cost savings after a project is completed.

Recommendation: Take a holistic approach to building decarbonization policy and program design by packaging it with energy efficiency, indoor habitability, and resiliency measures; and expand critical programs that offer energy efficiency and solar PV at no cost.

Supply Chain: Gas Infrastructure + Lithium Extraction

Concern: Both retiring the gas infrastructure and extracting lithium may present serious impacts on public health and the environment if not properly studied, managed, and communicated to nearby communities who are mostly low-income communities and communities of color.

Recommendation: Ensure thoughtful recycling and clean-up of retiring gas infrastructure, and conduct thorough research about the short-term and long-term impacts of lithium extraction in the Salton Sea and communicate these findings to frontline communities.

The following pages provide greater detail on these common statewide threads – organized by concerns and recommendations for each of key equity topics above. However, it is also important to consider the meaningful regional variations that exist – both across populations and geographies as well as among local laws, policies, and economies. Below describes these differences across the four regions involved in this report.

Regional Contexts

The listening sessions held thus far made evident that impacted communities and advocates statewide share similar equity concerns and a similar vision for a healthy home and future. While these common threads unify what building decarbonization should and should not look like in California, the four regions involved in this report are examples of the complexity of building decarbonization work. This regional context section is intended to help make the case for region-specific approaches instead of statewide, top-down policy development and implementation.

San Joaquin Valley

The San Joaquin Valley (SJV) is home to diverse communities and natural resources critical to California's prosperity. Unfortunately, the region also experiences some of the world's worst air pollution and high rates of poverty. Many SJV residents have not had access to natural gas service and instead burned propane or wood to heat their homes.

Assembly Bill 2672 (Perea) led to the approval of \$56M for pilots to reduce reliance on propane and wood burning and move communities in the SJV towards clean energy - making these the only existing decarbonization pilots targeting environmental justice communities in the country. Pilot development and funding included the highest levels of community engagement seen in many years at the California Public Utilities Commission. Key pilot features include: Community Energy Navigators, bill savings, renter protections, workforce training and local hiring requirements, appliance warranties, and community data gathering. The pilots have been invaluable in better understanding SJV residents' energy needs and access, and demonstrating a successful example of localized building decarbonization.

East Coachella Valley

The East Coachella Valley (ECV) is made up of four rural and unincorporated communities served by the Imperial Irrigation District, including Thermal, Oasis, Mecca, and North Shore. With a total population of roughly 22,000, these communities are home to predominantly Mexican and Latinx agricultural working families in one of the main agricultural bases in the world.

The region may also become a major source of lithium, which is a vital component in batteries. Lithium extraction is proposed in the Southern region of the Salton Sea, and while ECV lies North of the Salton Sea, there may be impacts across the entire Salton Sea region. Chosen in 2019 as an [AB 617](#) Community Air Protection community, ECV experiences serious levels of air pollution and respiratory illnesses while also lacking basic and reliable energy infrastructure. Building decarbonization may present an opportunity to address these issues, but the potential risks of lithium extraction have not been thoroughly studied and communicated to residents – leading to heightened concern of employing

building decarbonization as a strategy in ECV and the impact of statewide building decarbonization on the ECV. Communities must be equipped with all relevant information, decision-making power, and the assurance that benefits of building decarbonization/lithium extraction (e.g. green jobs) will flow locally.

Los Angeles County

Los Angeles County is one of the nation's largest and most populous counties, accounting for more than 10 million people. More than a quarter of all Californians live in LA county where diversity in culture, landscape, and industry can be found. Disparate impacts of climate change and the housing crisis can also be found throughout the region and in the City of Los Angeles, particularly in low-income communities of color near busy freeways, the largest port in the nation, and South LA.

Building decarbonization was identified as a critical strategy in the LA Green New Deal to reduce the city's greenhouse gas emissions because buildings accounted for 40% of the total emissions. Under this effort, LA's City Council recently introduced a motion to ban fossil fuels from new construction. To ensure its equitable implementation, affordable housing and workforce development must particularly be addressed in tandem with building decarbonization in order to ensure residents have access to healthy and affordable homes and quality clean energy jobs.

San Francisco Bay Area

The San Francisco Bay Area comprises nine climatically and demographically diverse counties: Alameda, Contra Costa, Marin, Napa, San Mateo, Santa Clara, Solano, Sonoma, and San Francisco. It is home to more than 7 million people, of whom half are communities of color.

The Bay Area is seen as a leader in the state's building decarbonization efforts as several cities, starting with Berkeley, have passed reach codes to make new construction all or partially electric. Due to tremendous grassroots advocacy and the prevalence of community choice aggregations (as opposed to other regions in California), cities like Berkeley, Oakland, and San Francisco have passed their own varying reach codes and are in the process of implementing these codes and developing pathways to electrify their existing building stock.

Equity Concerns, Opportunities, and Recommendations Across All Regions

Equitable Process + Meaningful Engagement

Public processes intended to allow community members to provide feedback and recommendations to public programs and investments are not equally accessible to all Californians. For instance, public meetings are often held during traditional business hours when workers are unavailable, or they are held only in English without translation or interpretation services. Additionally, engaging in public commenting processes requires time, resources, and technical and/or bureaucratic expertise that community members typically do not have because they are busy making a living. Community members who have participated in public processes may never receive any information on if and how their comment(s) was/were considered, which leads to frustration and reduced motivation to continue to

engage in public processes. We should apply lessons learned from the CPUC's development of the SJV pilots - and the extensive level of community engagement conducted in partnership with established community partners.

Concerns

- Community groups and participants, particularly non-English speaking, and workers are often excluded from outreach and education efforts as well as decision-making processes.
- Communities have difficulty trusting programs that do not have community input from the inception to evaluation. Trust is also frayed when there is no follow-through where input has been made.
- Communities are often not informed about major projects and developments, such as lithium extraction, and their impacts on public health and the environment.

Recommendations

- Provide sufficient funding to local groups to lead and engage in outreach and community education, including funding for staff time, stipends for community members, and translation services.
- Define success in community engagement by whether it impacts the decision-making process, funding decisions, and policy outcomes.
- Ensure education and engagement efforts are conducted in multiple languages, including all languages present in the community beyond just the top few languages spoken.
- Ensure all relevant community stakeholders are part of the process from inception to evaluation. See also The Greenlining Institute's [Equitable Building Electrification Framework](#) for a 5-step framework on how to center equity from inception to evaluation.

Access + Education

Historically, clean energy programs have been designed for the "average" customer who is assumed to speak English, have broadband access and ability to navigate the internet, have access to natural gas or electricity, have appliances inside of their home eligible for replacement, and live in a single-family home. Access to and outreach about energy policies and programs fail to consider and address linguistic, cultural, or regional nuances as well as "non-traditional" housing structures, such as mobile homes.

Concerns

- There is a lack of culturally and locally specific education to equip communities with knowledge of the risks and opportunities associated with building decarbonization.
- Barriers related to home ownership documentation prevent mobile home residents from participating in programs.
- People who place and use appliances outside of the home (due to space and/or other constraints) are unable to participate in programs.
- Residents without existing appliances to replace (like air conditioning units) or without access to natural gas are ineligible for many programs to access cleaner, efficient appliances.

- Propane users are impacted by lack of access to clean energy and bill assistance programs, a lack of regulatory protections from a volatile propane market that generates unpredictable and sometimes extortive propane costs, and lack of basic energy infrastructure. Since propane users don't have access to gas, they are also not eligible for ratepayer funding. Without oversight, propane companies have raised costs during winter months when demand is high.
- Many households do not want to transition to all-electric heating, cooling, and appliances, particularly if they increase costs or impact traditional cooking practices.
- Excessive requirement of legal documents, especially if only available in English, pose a barrier to non-English speaking households in accessing programs.

Recommendations

- Work with local community experts to create and fund accessible and reliable programs. This may look like:
 - Investing in community groups and energy navigators to assist with outreach, education, program implementation, and evaluation.
 - Ensuring culturally-sensitive program implementation through trusted messengers and local installers and vendors who have linguistic and cultural competency in the communities where they are working.
 - Implementing accountability measures – data tracking and evaluation that's relevant to community priorities and protections is needed, e.g. renter impacts and costs, etc.
 - Removing barriers for mobile home participation, for people without existing appliances or natural gas connections, and for people who use appliances outside.
- Move away from short-term program deadlines/times, and structure programs with a flexible phased approach to allow customers to opt in when they're ready or when appliances need to be replaced, and support the remaining customers still connected to gas infrastructure to mitigate safety issues from reduced throughput.
- Incorporate the lessons from the SJV Pilots and invest in pilot projects in all regions of the state to identify the best policy/funding road map given the unique context of each community.
- Create a one-stop-shop for all state programs, incentives, and things needed to comply and implement decarbonization for residential and commercial buildings (building off of work underway to create a resource hub in San Francisco).

Distributional Justice: Costs + Affordability

Many low and middle-income residents are still facing high levels of utility debt and impending disconnections with the COVID-19 utility debt moratoria having expired. Public funding should prioritize and fully fund decarbonization measures that reduce energy burdens for low-income communities.

Concerns

- Most households in disadvantaged communities are below state median income.

- Reduced gas throughput from first adopters could increase gas rates beyond increases already anticipated, in addition to making the system less safe for users. This exacerbates the energy burden for remaining gas customers.
- Energy bills are already so high for low-income households, and many suffer from utility debt – there is fear that bills may go up with new electric appliances.
- The upfront costs of switching to all-electric appliances are too steep for most low-income households and those facing job insecurity. Existing rebates are not enough to cover the costs of replacing an appliance.
- Many low and middle-income households are considered ineligible to access current financial assistance programs. Program income thresholds don't always cover families struggling to make ends meet, e.g. CARE/FERA thresholds may be set too low.
- Communities shouldn't pay for upgrades on their own - they have already paid for the negative impacts of pollution and shouldn't have to pay for the solutions too.
- Customers will not know how or may not be able to manage time of use rates to minimize bill costs for using electric appliances. Bills and available information are often not available in languages other than English.

Recommendations

- Fully fund building decarbonization programs, similar to the SJV pilots, for low-income communities and communities of color, to provide restitution for decades of unfair gains and historical disinvestment as well as regressive rate design and inequitable distribution of publicly-funded solar and efficiency programs to date. Any decarbonization program for these communities should also aim to reduce or eliminate prior utility debts and energy burdens.
 - Relief – not rebates – is needed to make energy efficient and all-electric appliances accessible to low-income households, especially renters.
 - Identify funding sources to eliminate cost impacts on low-income residents, and to provide payment plans for middle income residents as needed (such as on-bill financing). Reducing/eliminating costs will increase the rate of adoption.
 - Ensure sufficient funding to reduce/eliminate COVID-19 and other utility debt.
 - Create more incentives for small landlords, and make mortgage support programs like Cal-HERO more accessible to landlords who may not be eligible for past delays in mortgage payments.
- Provide better analyses of cost impacts of retrofits and new appliances is needed at the local level - not lifetime analyses. Build programs and financing to ensure bills are reduced after the installations are complete, and clearly communicate cost impacts over time to residents before installations begin.
- Conduct education with residents on demand response and best practices for energy use so they can maximize energy savings.
- Relevant decision-makers should conduct an analysis of Prop 26 impacts in Irrigation Districts and POU territories, which has had the effect of limiting the ability of local governments and public agencies to create new revenue streams and programs targeted to low-income communities and communities of color.

- Energy improvements must start with energy efficiency upgrades at the home to save energy use and lower utility bills, otherwise customers could be negatively impacted by increased electricity use. Integrate efficiency and electrification programs to increase ratepayer engagement and reduce barriers to participation. Layer renewable energy improvements (like solar, electric vehicle infrastructure, etc.) to maximize investment, reliability and cost savings. *See also Holistic Upgrades: Health, Safety, and Resiliency.*

Renters' Rights + Protections

Most low-income residents in California are renters, over half of whom are rent burdened, meaning they spend more than 30 percent of household income on rent and utilities each month. As of December 2020, according to U.S. Census Bureau Household Pulse Survey data, 1.9 million renters were behind on rent. Due to a legacy of racially-restrictive housing covenants, discriminatory lending practices, and redlining, renters of color are more likely to experience disproportionate housing insecurity, struggle to afford rent and utility bills, and face higher eviction risks. This context all needs to be taken into account as building decarbonization policies are designed and implemented.

Concerns

- There is significant risk of evictions or rent increases for renters if their buildings engage in decarbonizing retrofits or any other energy related program that may pass down costs to renters.
- Many renters are unaware of the legal mechanisms to ensure the habitability of their homes and protections against displacement – if any. Even current habitability and rent protections for renters are not well-enforced.
- Landlord harassment is a common reality for many low-income renters when faced with the cost burdens of all-electric retrofits.
- Many renters are not able to access new technologies or programs without landlord cooperation.

Recommendations

- Engage local tenant rights groups to identify and address any gaps in renter protections before proceeding with policy changes or programs. Fund those groups to assist with renter outreach and education efforts, including about their rights and programs that they are eligible for.
 - Create a baseline, standard renter agreement for any retrofit funding and programs.
 - Include safeguards for “temporary” renter re-locations, including preventing exploitation of temporary relocation of renters that can become permanent.
- Amend state law to preclude landlords from passing through costs of improvements to Rent Stabilization Ordinance (RSO) renters, renters in covenanted affordable units, and low-income renters in non-RSO units, including by closing the remodeling as a cause for eviction loophole in AB 1482. See [Los Angeles Building Decarbonization: Renter Impacts and Policy Recommendations](#).

- Pass mandates that require property managers and buildings owners to renovate their buildings without displacing and/or passing costs to renters.
- Renters should be protected by the Warranty of Habitability – which is essentially a long list of standards landlords must follow to ensure building habitability.
- Identify who will be responsible for overseeing and enforcing renter protections in a meaningful way. Explore having the Attorney General create an oversight bureau, with private right of action from residents. Outline what enforcement includes, such as a landlord liability provision.

Regulated Affordable Housing

Even before the COVID-19 pandemic, California faced a shortage of 1.2 million affordable housing homes. The existing racial wealth gap worsened by the pandemic-induced economic crisis leaves many more low-income renter households without access to affordable housing. As the state moves toward decarbonizing its buildings, it must consider how deed-restricted affordable housing and its renters and providers will be impacted. The following bullet points refer mostly to providers of Regulated Affordable Housing, or affordable multifamily housing developed with the use of low-income tax credits (LIHTC). This housing has rent restrictions and renter eligibility standards, as opposed to Naturally Occurring Affordable Housing (NOAH), which do not have these regulations but may be considered affordable for other reasons. See the report [Prioritizing California's Affordable Housing in the Transition Towards Equitable Building Decarbonization](#) by California Housing Partnership for more information and recommendations.

Concerns

- There is a lack of staff capacity, training, and funding to plan, design, and pay for all-electric new construction or make decarbonizing retrofits in existing affordable housing developments.
- Affordable housing properties are usually tied to multiple owners and developers, or other covenants (like a private developer, public housing partnership, local jurisdiction program or policy requirements), which makes it difficult to get permission to access financing for new construction additional costs or retrofits.
- Oftentimes, environmental priorities are pitted against affordable housing priorities, creating a false choice between health, safety, and comfort versus affordability.
- There is general confusion about existing clean energy programs and the relationships between them.
- Split incentives pose a barrier to affordable housing providers pursuing electrification as they cannot recuperate the costs of electrification through rent increases due to utility allowance and rent restrictions.
- An all-electric design and the associated upfront costs may negatively impact the competitiveness of an affordable housing provider's application to access TCAC (Tax Credit Allocation Committee) and CDLAC (California Debt Limit Allocation Committee) funds, which is typically the primary source of funding for affordable housing developments.
- Higher operating costs associated with electrifying existing buildings make these developments less competitive for tax-exempt bond finance and Low-Income Housing Tax Credits (LIHTC).

- The CUAC (California Utility Allowance Calculator) and Standard UAs (Utility Allowance) tend to lean more conservative and, while the CUAC may help support energy efficiency, both approaches do not incentivize all-electric construction.

Recommendations

- Provide funding for more training, education, technical assistance, and financial incentives for affordable housing professionals to implement decarbonization in new and existing buildings.
- Take measures to preserve affordable housing, especially when significant improvements are made during rehabilitation cycles.
- Synergize clean energy programs and housing financing programs to make it easier for providers to access and utilize.
- Align TCAC and CDLAC with the state’s sustainability goals by incorporating decarbonization benefits (i.e., carbon reduction and improved air quality) into their competitive processes for funding. Costlier developments due to decarbonization should not be made less competitive for TCAC and CDLAC funds.
 - TCAC should award a threshold basis boost to an all-electric construction.
 - CDLAC should give more weight to “public benefit efficiency” (e.g. an all-electric design) in its tie-breaker calculation.
- Develop a new or reform the CUAC to support a right level of utility allowance to support affordable housing providers and renters in all-electric utility scenarios.
- Target a guaranteed amount of subsidies to affordable housing that house homeless/formerly homeless individuals, including shelters and permanent supportive housing (PSH).
- Increase subsidies and incentives to affordable housing providers with enhanced renter protections built in.

Workforce Development + High-road Jobs

Building decarbonization upgrades have the potential to create thousands of good, local jobs while prioritizing workers and contractors historically excluded from economic opportunity, but only if done via intentional policy and program design. Policymakers should also prioritize a just transition for unionized gas system workers by investing in comparably skilled infrastructure projects and jobs, such as water efficiency/dual piping codes. See the report [Los Angeles Building Decarbonization: Community Concerns, Employment Impacts, and Opportunities](#) written by Inclusive Economics in coordination with the LA Alliance for a New Economy and RePower LA coalition for more analysis on impacts and possible solutions.

Concerns

- There is a lack of diversity and an impending gap in the building trade workforce; the majority of the existing workforce are white males who are retiring in the next 10-15 years.
- Job quality of decarbonization projects is more reflective of a low-road market vs a high-road market due to lack of focus on workforce development and high-quality job creation. In the private construction market, there are no assurances that jobs created will be high-road, good

quality jobs or accessible to workers and contractors historically excluded from economic opportunity.

- Reduced gas sales and reductions in gas infrastructure can lead to a loss of good-paying union jobs associated with the gas system, particularly for utility workers, plumbers, and pipefitters.
- There is fear that green jobs will not be accessible to those who do not meet educational requirements, have legal documentation, and speak English.

Recommendations

- Include community workforce agreements with targeted hire standards, supplier diversity metrics, and coordination with apprenticeship readiness programs in any publicly-funded program to ensure job access for local and priority populations underrepresented in high-road construction jobs.
- Support training and capacity-building for students and returning citizens (see [this explanation from United Returning Citizens](#)).
- Prioritize women and minority-owned business enterprises (WMBEs) in public and private contracting, and consider encouraging worker co-ops to participate in building decarbonization work.
- Adopt skilled and trained workforce, apprenticeship standards, and other high road labor standards, such as by partnering with unions to train workers and previously employed fossil fuel workers for increased job demand.
- Condition permits and public funding on the use of a skilled and trained workforce.
- Include energy and water efficiency strategies within building decarbonization policies (e.g. through dual piping code, district energy, or other solutions) to facilitate meaningful job opportunities in impacted trade sectors.
- Couple planning and job estimates with training programs to ensure participants have good jobs at the end of the program.

Holistic Upgrades: Health, Safety, + Resiliency

A holistic approach must be taken when decarbonizing buildings – this means ensuring energy efficiency, resiliency and habitability measures, and connection to a clean energy grid system are packaged with installing or replacing gas-powered to all-electric appliances. For example, energy efficiency upgrades, such as window insulations and LED lighting, and solar photovoltaic (PV) systems packaged with building decarbonization will allow households to reduce energy consumption and bill costs associated with all-electric appliances. Without a holistic approach, the maximum benefits of building decarbonization (e.g. bill savings and improved indoor air quality and housing conditions) cannot be attained.

Concerns

- Existing programs do not always give participants to understand the needs in their homes, or to determine the scope of improvements made during a project.

- Installing electric appliances without more holistic home upgrades to reduce energy consumption could result in higher bills, putting low-income ratepayers at further risk of disconnection.
- Installing electric appliances without sufficient resiliency measures may make households more vulnerable during power shut-offs, which is especially harmful for the elderly, people with disabilities, and people dependent on medical technology. Gas stoves, while polluting, also stay operational during a power shut-off event.
- Wildfires and extreme heat waves will increase over the next few decades, so a resilient grid infrastructure and sufficient cooling measures are needed with building decarbonization.
- Due to unresolved landlord-renter split-incentive issues and historical disinvestment in low-income communities of color, many homes and apartments need indoor health remediation (e.g. from lead and mold) and other deferred maintenance upgrades to accommodate building decarbonization technologies.

Recommendations

- Ensure a holistic approach to building decarbonization policy and program design by coupling it with:
 - Energy efficiency measures (e.g. temperature control and insulated windows), building envelope improvements to reduce cost burdens, and whole-building audits that are performed with input and in partnership with the residents;
 - Healthy, high-quality indoor environments by using materials without hazardous chemicals to address pre-existing mold, moisture, and ventilation issues; and
 - Battery storage as a resiliency measure during power outages or other extreme events.
- Increase funding for and expand energy efficiency programs that provide low-income households energy efficiency upgrades and solar PV systems at no cost, similar to those under the [Low-Income Weatherization Program](#) (LIWP). In addition to improved insulation and energy efficient air conditioning, measures under LIWP that should be replicated and/or expanded to include:
 - Community Solar Pilot Program – *expands access to renewable energy for low-income households that are unable to participate in existing solar PV programs.*
 - Farmworker Housing Energy Efficiency & Solar PV – *installs energy efficiency measures and solar PV systems for farmworker households.*
 - Multi-Family Energy Efficiency and Renewables – *provides technical assistance and incentives for energy efficiency and solar PV installations in low-income multi-family buildings.*
- Synergize LIWP and related energy efficiency programs with building decarbonization strategies to ensure no to low cost upgrades and bill savings.
- Invest in locally-sourced power generation, e.g. community-owned solar.
- Examine existing state program eligibility to ensure access to energy efficiency and other energy related programs, and that costs are reduced or eliminated for low-income ratepayers – *see also Distributional Justice: Costs + Affordability as well as Access + Education.*

Supply Chain: Gas Infrastructure + Lithium Extraction

The materials and infrastructure associated with building decarbonization must be taken into account so as to prevent further environmental degradation and harm to low-income communities and communities of color. Decommissioning the gas infrastructure will be required when decarbonizing – and in doing so, gas lines should not be repurposed to distribute green-washed fuel sources, and the retired equipment must be thoroughly managed to avoid becoming hazardous waste. In addition, lithium extraction is proposed in the Salton Sea to produce batteries for electric vehicles and storage, however residents are worried these projects may pose public health and environmental risk to nearby communities.

Concerns

- Gas infrastructure will be repurposed for exports and not result in lowering pollution or climate emissions.
- Lithium extraction and other toxic materials needed for cleaner technology can also cause social and environmental harms, including in the Eastern Coachella Valley and Central Valley in California.
- High-level of waste from building projects, as well as from clean energy technology cannot be recycled at this time.
- Electrification that outstrips the supply of electricity from clean sources will result in using gas to produce electricity to fill the need.

Recommendations

- Create a plan to retire and replace existing gas infrastructure with local clean sources of energy; ensure toxic soils and water are remediated.
- Conduct more research on new technology proposed in the Salton Sea and the potential risks of lithium extraction on public health and the environment.
 - Consider long-term, non-toxic, non-extractive solutions for energy storage.
- Develop plans for disposal/recycling of waste from building improvements and clean energy technologies.

Conclusion

California decision-makers must prioritize community needs in the transition to equitable building decarbonization to rectify historical injustices and prevent future inequities. The recommendations herein provide a substantive foundation to improve upon existing policies and programs, and design cross-sector solutions that meet communities where they are to bring everyone into a decarbonized future. We look forward to partnering with the state to bring these critical investments to our communities in a locally-specific, effective, and just manner.

References

- [Equitable Building Electrification: A Framework for Powering Resilient Communities](#)
- [Prioritizing California's Affordable Housing](#)
- [Los Angeles Building Decarbonization: Community Concerns, Employment Impacts, and Opportunities](#)
 - [Summary](#)
- [Los Angeles Building Decarbonization: renter Impacts and Policy Recommendations](#)
 - [Summary](#)
- [California Building Decarbonization Workforce Needs and Recommendations](#)