



Rapid Decarbonization for a Climate-Safe Future

A five-year initiative to enact the bold policies required by science to be on track for a safe climate by 2030 for a vibrant, equitable, and healthy future for all

Climate impacts hitting harder and faster

The latest climate [science](#) ([here](#) and [here](#)) supports what millions of people around the world are experiencing daily: the impacts of climate change are hitting harder and faster than expected, posing grave threats to human health and well-being. Children, the elderly, and people living in low-income communities are disproportionately affected. Our only hope for a vibrant, healthy, and equitable future for all is to enact bold climate policies now, not decades from now.

Tragically, just as scientists, governments and communities around the world acknowledged global warming as a “crisis” and the “defining problem of our time,” the United States began pulling out of the Paris climate accord, rolling back decades of environmental protections, and actively undermining climate science. The current Administration has been especially hostile to California, most recently by [revoking](#) the state’s authority to set higher auto emissions standards even as [major automakers](#) vow to continue adhering to [them](#).

Growing demand for climate action

Local governments worldwide are [declaring climate emergencies](#). In addition, the recent groundswell of support for action on global warming, with young activists leading the way, is forcing a realignment of values around [climate](#). Young people are demanding rapid



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decarbonization of our economies, aiming their message at governments that have been slow to recognize global warming as an emergency that threatens us all. The de facto head of the youth-led movement, Greta Thunberg, admonished world leaders at a [UN gathering](#) in blunt terms: “How dare you! How dare you continue to look away, and come here saying that you're doing enough when the politics and solutions needed are still nowhere in sight.”

Bold action urgently needed

In October 2018, UN scientists issued a special [report](#) concluding that to avoid long lasting or irreversible climate change impacts, we must limit the average global temperature to 1.5°C above pre-industrial (1850-1900) levels. Average global temperature is currently 1.1°C above pre-industrial times and we are already experiencing deadly extremes regularly around the globe. According to the report, holding down the average global temperature to these levels will require:

- slashing global emissions of carbon dioxide in half by 2030;
- achieving net zero emissions (carbon emissions balanced with carbon removal from the atmosphere) by 2050; and,
- removing 500-1,000 billion tons of human-caused emissions already in the atmosphere over the decades ahead.

Since these recommendations were made public, new science findings conclude that climate change impacts are accelerating even faster than projected (see [here](#), [here](#), [here](#) and [here](#)). Climate science consistently [underestimates](#) the pace of global warming. This combined with the UN climate body's (UNFCCC) requirement for the global community to reach consensus—a tricky endeavor on any topic—has resulted in necessarily conservative conclusions. Recommended actions and timelines have lagged reality.

The Climate Center's rapid decarbonization campaign translates the urgent need for bold action and the groundswell of public support into actual speed and scale GHG reductions. It is the vehicle for change commensurate with the crisis.

We cannot be content with the slow progress that California is making on climate when everything is at stake. The science is clear, as are the solutions. Just as we made the problem, we can solve it. With your generous support, we will seize this moment to demonstrate in California, the world's 5th largest economy, how to enact the bold policies required by science to reverse the climate crisis.

“The climate crisis has arrived and is accelerating faster than most scientists expected (IPCC 2018). It is more severe than anticipated, threatening natural ecosystems and the fate of humanity (IPCC 2019).

...To secure a sustainable future, we must change how we live, in ways that improve the vital signs... the prospects will be greatest if decision-makers and all of humanity promptly respond to this warning and declaration of a climate emergency, and act to sustain life on planet Earth, our only home.”

-Ripple et. al. [World Scientists' Warning of a Climate Emergency](#), Bioscience, November 2019

Rapid decarbonization for a climate-safe future

Our new five-year campaign will enact by 2025 the bold policies required by science to put California on the path to a safe climate and vibrant, equitable and healthy future by 2030.

The cornerstone of this rapid decarbonization campaign is a coalition of powerful climate leaders and activists. Together we will push California state and local governments to pass legislation with much more aggressive goals and timelines for achieving net negative greenhouse gas emissions (sequestered greenhouse gas exceeds emissions) no later than 2035.

Ensuring a just and equitable transition

As we transition to a clean energy economy globally and in California, we must ensure that workers and frontline communities dependent on fossil fuel production and related enterprises are not left behind. Nations all over the world are starting to address this [key issue](#) to our collective economic and social well-being. Policies to decarbonize economies must ensure workforce and community security, including proactive approaches to pensions, retraining, housing and healthcare while building a climate-resilient future.

In addition, California must prioritize and support climate-vulnerable frontline communities and energy-insecure communities in achieving these rapid decarbonization goals.



The policies we will advocate for must make it easier for everyone to make climate-friendly choices, from purchasing 100% renewable energy and replacing natural gas appliances with electric to leasing or buying electric vehicles and/or using more mass transit, e-bikes and e-scooters, and eating locally, regeneratively grown food. Achieving our goals will require rapid and far-reaching transformations in nearly every aspect of California life: energy, industry, buildings, transport, land use, and urban planning.

Economic opportunity in the midst of crisis

The climate crisis is the largest wealth creation opportunity our lifetime, according to renewable resource financier Jigar Shah. Despite initially high-price tags, investments made in solving big problems have an outsized positive impact on societies, communities, and individuals because they stimulate the economy by creating new industries and jobs. Think of

<https://www.iddri.org/en/publications-and-events/blog-post/investing-just-transition>

transportation solutions such as railroads, automobiles, and airlines or communications solutions such as telecommunications and the internet. Market-driven investments in decarbonizing California is already demonstrating positive economic and societal benefits.

The cost of climate inaction significantly dwarfs the investment needed to secure a vibrant, healthy, and safe future. We need look no further than the financial impact of California's 2018 fire season for evidence. With total economic losses predicted [at \\$400 billion](#), it is on track to be the most expensive natural disaster in the history of the U.S.

California inspires and moves the world

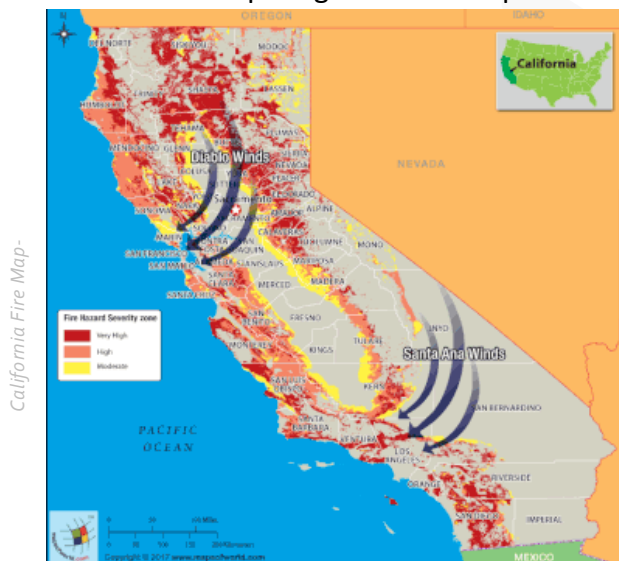
California, the world's 5th largest economy, is a leader in combatting global warming, influencing other states and other countries. Building on the landmark AB32 climate legislation of 2006, Governor Jerry Brown signed SB32 into law in 2016, which requires the state to reach 40% below 1990 levels of greenhouse gas pollution by 2030. In September 2018, Governor Brown signed SB100 into law setting a target of 100 percent carbon-free electricity by 2045, as well as a bill requiring California to produce half its electricity from renewable sources by 2025

and 60% by 2030, while doubling energy efficiency in buildings by 2030. Governor Brown also signed an executive order (B-55-18) committing California to economy-wide carbon neutrality by 2045. Current Governor Gavin Newsom has vowed to continue and expand on California's leadership in climate action.

As a result of its forward leaning policies on climate action, California is the most innovative economy in America with a high concentration of clean energy entrepreneurs. California ranks #1 on Bloomberg's U.S. State Innovation Index and

is also the U.S. clean tech leader based on indicators in technology, policy, and capital. With world-class universities, mature funding and business-building infrastructures in San Francisco, San Jose, Los Angeles and San Diego, California is the most desirable location for energy tech startups.

Californians are deeply concerned about global warming and support bold action, even without federal government support and even with increased costs. According to a [survey](#) by the Public Policy Institute of California, a supermajority of Californians (80%) view global warming as a serious threat to the future economy and quality of life. Two in three Californians (65%)



favor the state acting independently of the federal government on climate change. Half (50%) say they would pay more for electricity generated by renewable sources.

The Climate Center is uniquely positioned to drive rapid decarbonization

[The Climate Center](#) is a California-based nonprofit founded in 2001 to deliver rapid greenhouse gas reductions at scale. The Climate Center played a pivotal role in rapidly expanding Community Choice Energy, from 2 agencies five years ago to 19 today, which now supply 11 million Californians—one quarter of the state—with 88% clean energy.



Representatives of California's Community Choice agencies at The Climate Center's annual symposium, June 2019.

The Climate Center has received numerous awards including from the EPA for “exceptional contributions to global environmental protection,” from President Obama for our leadership role in establishing the first Regional Climate Protection Authority, and from the California State Senate as the Climate Advocacy Champion of the Year.

To grow Community Choice Energy in California, The Climate Center built a diverse partner network with local government, energy and environmental NGOs, business, labor, and state policymakers. Over the next five years, we will expand and mobilize this network to advance rapid decarbonization in the state. Our strategy will leverage the strengths of partners, current as well as new, from across multiple sectors of society.

Invest in rapid decarbonization for a climate-safe California

With your generous support for our rapid decarbonization initiative, **The Climate Center and our partners will seize this moment to enact no later than 2025 the bold policies required by science to put California on track for decarbonization by 2030.** Our overarching strategy is to build a powerful and growing coalition of climate advocates who will drive policy change at the state level in California as a model for other states and countries, focused on the six strategic objectives below.

This suite of decarbonization policies are built around the latest science and climate reality. They are subject to revision based on new science and input from our expert advisors.



#1: Achieve by 2022 a formal state commitment to carbon neutrality by 2030 and net negative emissions by 2035

An early action will be to secure a formal declaration at the state level of our science-based target with a commitment to annual reporting on progress toward the target. We will advocate for an executive order and legislation signed into law no later than 2022 mandating that California achieve carbon neutrality (emissions balanced by sequestration) no later than 2030 and net negative emissions (sequestration greater than emissions) no later than 2035. And we will push for state inventories of greenhouse gas emissions to add emissions from wildfires, consumption-based emissions, and ecosystem degradation no later than 2025. We will ensure that California enacts just transition policies for those currently employed in carbon-intensive industries and their communities to assist the conversion to climate-friendly jobs while securing their financial and social well-being.

#2: Create 100% clean, distributed, resilient energy & storage by 2030

To secure a safe climate, California must have policies in place by 2025 to phase out of all fossil fuel subsidies, production and refining by 2030. Additionally, we must electrify all new and remodeled buildings while enhancing the efficiency of all existing buildings by 2030.

“The Climate Center’s suite of decarbonization policies are all required to stay below 2°C warming and avoid dangerous climate chaos. We need aggressive, equitable policies in place now so society can transition to a fossil-fuel free economy as quickly and safely as possible.”

-Carl Mears, PhD, UN climate scientist and member of The Climate Center’s Board of Directors

In the face of California’s widespread [power shutoffs](#) and the rise of dirty fossil-fuel-powered back-up generators due to increases in extreme fire weather, The Climate Center has launched the [Advanced Community Energy](#) (ACE) initiative. ACE establishes a decentralized power system including community microgrids to serve all Californians —prioritizing low income, high fire risk communities— with clean, local power and storage by 2030. ACE creates a statewide framework for designing and implementing local clean energy systems to also achieve widespread decarbonization of buildings and transportation. This system will reduce the number of planned and unplanned [outages](#), ensure essential health, fire, police, food, water and other services would powered starting with low-income communities during outages, and enable utilities to better target specific outages from the larger grid.

Clean & Smart Community Microgrid



Clean, Affordable, Resilient, Equitable and Safe

To fully implement community microgrids statewide, our goal is to transform state regulatory policies and institutions by 2022 so that thousands of small-scale distributed energy producers can be compensated for providing local services. We will need market signals, starting with increased state funding, to implement community microgrids at scale, prioritizing disadvantaged communities in high fire risk areas initially and eventually covering all of California. New legislation will also advance novel [performance-based metrics](#) for utilities, enabling them to fully support ACE programs in partnership with a range of stakeholders, including low income neighborhoods, clean energy developers, and technology companies.

#3: Achieve 80% sustainable mobility by 2030, including enacting a phase out of fossil fuel powered vehicle sales, by 2025

California must pass legislation by 2025 to phase out sales of new fossil fuel powered vehicles, including cars, trucks, and buses, over the next 5+ years. We must also reprioritize transportation investments to support housing near jobs, equity-focused Vehicle Miles Traveled mitigation banks and other innovative programs that reduce GHG pollution and improve health, especially in disadvantaged communities ([ClimateResolve 2018](#)).

Progressive rebates and other incentives for Zero Emissions Vehicle (ZEV) adoption must be increased by 2023 to achieve 50% ZEV cars (7+ million) in the state by 2025 and 90% by 2030. Fifty percent of remaining fossil fuel powered vehicles must be phased out by 2030. Half of Californians will be incentivized to get out of their cars for local travel, thanks to major new investments in clean energy transit expansion, including zero emissions buses, trains, e-bikes and e-scooters by 2030. Per a recent [study](#), “Regulating land use, shifting transportation spending, removing barriers to implementing road pricing policies, and altering standards for environmental impact analysis can more effectively reduce transportation-sector GHG emissions and mitigate climate change.”



UC Davis bike commuters, Photo by Carlton Reid

#4: Sequester 100+ MMT of CO₂e per year through healthy soils and vegetation by 2030

Ranchers, farmers, public lands managers, and other ecosystem managers must be incentivized to implement climate-friendly habitat and soil restoration and management on California’s



rural and urban lands as well as coastal waters (“blue carbon”) to sequester an additional 50 to 125+ million metric tons of carbon dioxide equivalents annually by 2030, if we start now. This would deliver additional benefits such as replenished groundwater, flood protection, drought resilience, greater biodiversity, reduced pollution, increased food production, and reduced pollution.

Nascent [industrial carbon removal technologies](#) will likely be valuable down the road but we already know how to manage natural and agricultural lands for sequestration today. Carbon sequestration on natural and working lands has also been identified by the [California Air Resources Board](#) as a priority pathway for greenhouse gas reductions. Equally important is protecting existing carbon stocks in soil, vegetation and the ocean.

Working with nature using climate-friendly management and restoration practices—such as on agricultural soils as well as in forests, mountain meadows, streamside habitats, tidal marsh, seagrass beds, kelp forests, urban trees and our own backyards— we can [store planet-heating gases](#) from the atmosphere for long periods of time while also providing many other benefits. Implementing bold and equitable policies that will catalyze carbon sequestration through building healthy soils and restoring healthy habitats will be key to achieving carbon neutrality by 2030 and net negative emissions by 2035.

#5: Implement resilience measures in every community by 2025

New legislation should allocate the needed funding and support to California’s counties and cities to develop and implement climate emergency response and preparedness measures (e.g., as part of their General Plan requirements) no later than 2022. Priority focus should initially be on the most vulnerable, low income communities. All California jurisdictions should be implementing resiliency efforts by 2025 including implementing climate-smart ecosystem management, early warning systems, evacuation centers, and comprehensive public education.



Photo: Gabrielle Lurie / The Chronicle

#6: Enact multiple green financing mechanisms to generate the funding required to pay for these urgent efforts by 2025

New climate action financing mechanisms must be added to the mix of available options by 2025 to generate upwards of \$50 billion annually for implementing climate policies by 2030. These include establishing and implementing a frequent flyer fee per passenger from any California airport as well as a progressive carbon tax and dividend, by 2025.



\$25 million over the next five years

To fund our multi-pronged **Rapid Decarbonization** strategy, **The Climate Center is raising \$25 million over the next five years, starting with securing \$2 million by winter 2020.** We will use the funds to hire expert staff and consultants, and leverage the expertise of our partner organizations to plan and implement the following activities that are essential to our success:

- **Establish a statewide Rapid Decarbonization Partnership and an expanded partner network** to ensure participation from and in key regions of the state, including the San Francisco Bay Area, Sacramento, the Central Valley, greater Los Angeles and San Diego, and rural areas including the Sierras and the North Coast
- **Develop science-based policies for each of our six strategic objectives** and identify effective pathways for implementation, including executive orders, agency directives, regulation, and direct legislation
- **Establish a strong legislative advocacy presence, both professional and grassroots, in Sacramento** to ensure that speed and scale solutions to global warming are represented in relevant conversations and legislation
- **Identify and build relationships with climate opinion leaders as well as other influencers in the state;** work with them to leverage outreach and persuasion efforts
- **Mobilize and engage communities through house meetings and social media** in districts of state lawmakers who chair key committees and hold leadership positions
- **Launch a major strategic communications campaign targeting key** audiences through traditional and social media
- **Increase our development and fundraising efforts** to reach like-minded high-net-worth individuals and foundations

Unprecedented times call for unprecedented action

Global warming is an emergency with the highest possible stakes: the future of life on Earth. The gradual progress that has characterized the climate movement to date is woefully inadequate and we are running out of time to avoid long lasting or irreversible impacts.

Starting now, not decades from now, solving the climate crisis must be the top global priority with every government, organization, business, community, and individual. The time is right for more aggressive climate action in California, serving as an example to inspire and move the world.

With your support of our **Rapid Decarbonization for a Climate-Safe Future** initiative, The Climate Center will seize this moment to collaboratively enact by 2025 the bold policies required by science to put California, and the world, on the path to a safe climate by 2030.

***Please join us on the urgent journey.
We must succeed. And with your help, we will!***



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