

CLIMATE CHANGE

California has a unique opportunity to build upon the state's history of innovation, economic growth, and science-based policymaking to lead global efforts to adapt to and mitigate climate change. The state is positioned to simultaneously confront the climate crisis and build a more resilient, just, and equitable future for all communities.

Integrating climate solutions with equity and economic opportunity can transform every aspect of how Californians live in their communities. The Budget reflects the need for urgent and comprehensive action across government. Record-breaking heat waves, a vanishing Sierra snowpack and life-threatening historic wildfires demonstrate that climate emergencies are growing with frequency and intensity in California. A record-breaking lack of precipitation from January through mid-April pushed California into a third consecutive year of drought. Climate change also continues to cause unprecedented stress on California's energy system—driving high demand and constraining supply—compounded by geopolitical and supply chain issues.

Building on the state's climate leadership and the historic \$15 billion climate resilience investments in the 2021 Budget Act, the Budget includes \$38.8 billion over five years, for a total \$53.9 billion under a climate and opportunity agenda to deliver community resilience, affordable housing, and expanded access to health care and education while advancing equity and expanding the number of Californians that share in the state's economic growth.

CLIMATE ON THE MOVE

Responsible for more than half of the state's climate emissions, the transportation sector generates air pollution, with a disproportionate impact in low-income and underrepresented communities. The Budget's climate investments will deliver opportunities for affected communities, accelerating job-creating clean technologies, advancing environmental justice, and reducing emissions from the transportation system.

ZERO-EMISSION VEHICLES (ZEV) ACCELERATION

The 2021 Budget Act committed \$3.9 billion towards ZEV acceleration through 2023-24. It included market-changing investments—ranging from cleaning up short-haul trucks, transit, and school buses to accelerating equitable electrification of passenger vehicles, e-bikes and rail—coupled with infrastructure and incentives for in-state manufacturing.

The Budget includes an additional \$6.1 billion (\$3.5 billion General Fund, \$1.5 billion Proposition 98, \$676 million Greenhouse Gas Reduction Fund, and \$383 million Federal Funds) one-time over five years to accelerate the state's transition to ZEVs, which includes \$3.5 billion that will be allocated in the summer after additional discussions with the Legislature. The Budget focuses on communities that are most impacted by air pollution impacts, to decarbonize California's most polluting sector and improve public health.

SIGNIFICANT INVESTMENTS INCLUDE:

- **Heavy-Duty Zero-Emission Vehicles**—\$1.5 billion one-time Proposition 98 General Fund to advance electric school buses in a coordinated effort between educational, air pollution, and energy agencies; and \$600 million one-time Greenhouse Gas Reduction Fund to support zero-emission trucks, buses & off-road equipment.
- **Low-Income Zero-Emission Vehicles**—\$76 million one-time Greenhouse Gas Reduction Fund to support low-income consumer purchases through Clean Cars 4 All and other equity programs.
- **Zero-Emission Vehicle Infrastructure**—\$383 million one-time federal funds to implement ZEV charging infrastructure programs pursuant to the federal Infrastructure Investments and Jobs Act.

TRANSPORTATION

Alongside the investments in ZEVs and infrastructure, the Budget includes \$13.8 billion one-time General Fund and bond funds over two years for transportation programs and projects that align with climate goals, advance public health and equity, and improve access to opportunity. Further, the state will be competitively positioned to pursue significant federal investments from the Infrastructure Investment and Jobs Act. These investments will create thousands of jobs, accelerate new investments to modernize existing transportation options, and support clean transportation projects that address climate change and equity.

SIGNIFICANT INVESTMENTS INCLUDE:

- **Active Transportation**—\$1.2 billion General Fund for projects to transform the state's active transportation networks, improve equity, and support carbon-free transportation options, including funding for: Active Transportation Program projects, the Reconnecting Communities: Highways to Boulevards Pilot Program, and bicycle and pedestrian safety projects.
- **High-Speed Rail and Transit**—\$4.2 billion Proposition 1A bond funds for High-Speed Rail, \$8 billion General Fund over four years for statewide, regional and local transit and rail projects, including \$350 million General Fund for high-priority rail safety improvements.
- **Climate Adaptation**—\$400 million (\$200 million General Fund and \$200 million federal funds) for climate adaptation projects that support climate resiliency and reduce infrastructure risk.

See the Transportation Chapter for additional detail.

CLIMATE RESILIENCE

Building on the over \$15 billion in multi-year climate resilience investments in the 2021 Budget, the Budget advances programs to protect communities from the imminent climate threats of wildfire and drought, while implementing budget priorities on extreme heat, nature-based solutions, sea-level rise, and community resilience.

DROUGHT RESILIENCE AND RESPONSE

Climate change is spurring warmer conditions in California and creating larger gaps between significant precipitation events that are vital to water supply. This year, water project operators will make only minimal deliveries to farms and cities, and wildlife managers are taking extraordinary action to relocate salmon to streams with cooler water than can be made available below major reservoirs.

Lessons learned in the 2012-to-2016 drought inform the current state response, which has also benefitted from significant investments, new data tools, and policy shifts over the last several years. This includes new laws related to safe drinking water, drought planning, water conservation, and local management of groundwater.

The historic three-year, \$5.2 billion investment in California water systems enacted in 2021-22 has helped to minimize immediate economic and environmental damage from the drought and enabled hundreds of projects by local water suppliers to prepare for and be more resilient to future droughts.

The Budget includes an additional \$2.8 billion one-time General Fund over multiple years to support drought resilience and response, which includes \$1.5 billion that will be allocated in the summer after additional discussions with the Legislature. The Budget focuses on drought relief, promoting water conservation, and response designed to help communities and fish and wildlife avoid immediate negative impacts as a result of extreme drought while continuing to advance projects and programs that prepare the state to be more resilient to future droughts.

SIGNIFICANT INVESTMENTS INCLUDE:

- **Immediate Drought Support**—\$431.5 million to provide grants to urban water districts and smaller community water suppliers for drought relief projects; support public education campaigns; support local technical assistance and emergency drinking water response, including the purchase and pre-positioning of water storage tanks; and enhance water rights enforcement.
- **Drinking Water, Water Supply and Reliability, Flood**—\$500 million to advance drinking water and clean water projects that leverage significant federal infrastructure funds, support dam safety, and flood management.
- **Water Conservation/Agriculture**—\$280 million to support agricultural water conservation practices, provide on-farm technical assistance, provide direct relief to small farm operators, and support additional water conservation projects.

- **Fish and Wildlife Protection**—\$88.3 million to address fish and wildlife impacts associated with drought and climate change, and tribal co-management activities.

WILDFIRE AND FOREST RESILIENCE

The ongoing impact of climate change on California's wildlands continue to drive critically dry fuel conditions and longer, more severe fire seasons. In 2021, the state experienced 5 of the 20 largest wildfires in its history, and California communities continue to rebuild from successive climate change-driven catastrophic wildfire seasons.

The 2021 early action package and 2021 Budget Act included a combined \$1.5 billion one-time investment in restoring the state's wildfire resilience by increasing the pace and scale of forest and fuel management practices.

The Budget includes an additional \$1.2 billion over two years to support wildfire and forest resilience which includes \$530 billion that will be allocated in the summer after additional discussions with the Legislature. This funding supports a comprehensive wildfire and forest resilience strategy to continue to reduce the risk of catastrophic wildfires.

SIGNIFICANT INVESTMENTS INCLUDE:

- **Resilient Forests and Landscapes**—\$400 million to enhance wildfire resilience across California's diverse landscapes by thinning forests, replanting trees, expanding grazing, utilizing prescribed fire, and supporting reforestation, which will also improve biodiversity, watershed health, carbon sequestration, air quality, and recreation.
- **Wildfire Fuel Breaks**—\$265 million to support strategic fuel breaks projects that will enable local communities to develop their own fire safety projects.
- **Community Hardening**—\$5 million to expand defensible space inspections.

NATURE BASED SOLUTIONS, EXTREME HEAT, AND OTHER CLIMATE RESILIENCE ACTIVITIES

The 2021 Budget included \$3.7 billion one-time General Fund over three years for investments that support multi-benefit and nature-based solutions, address impacts of extreme heat, build ocean and coastal resilience, advance environmental justice, and deliver community resilience and capacity where resources are most needed. The

Budget includes approximately \$2.1 billion General Fund in 2022-23, associated with the second year of investments.

The Budget includes \$4.2 billion General Fund that will be allocated in the summer after additional discussions with the Legislature across various climate activities including: \$768 million General Fund over two years for nature based solutions; \$300 million over two years for extreme heat; and \$3.1 billion over four years to support various other investments that support climate and energy activities, including climate-related grants to companies headquartered in California.

ENERGY

Climate change is causing unprecedented stress on California's energy system—driving high demand and constraining supply. Extreme weather events from climate change—including heat waves, wildfires, and the impact of drought on hydropower capacity, combined with other factors such as supply-chain disruptions—are jeopardizing California's ability to build out the electric infrastructure in the time frame and at the scale needed.

The Budget includes a total of \$8.1 billion one-time General Fund over five years to support energy reliability, relief, and clean energy investments, which includes \$3.8 billion that will be allocated in the summer pending additional discussions with the Legislature.

SIGNIFICANT INVESTMENTS OF THE REMAINING \$4.3 BILLION INCLUDE:

- **Strategic Electricity Reliability**—\$2.2 billion one-time General Fund to support strategic energy reserve resources that will be available when the grid is stressed. This will increase the state's ability to withstand extreme and coincident climate events, but will not take the place of the longstanding obligations of all load serving entities to procure sufficient resources to maintain reliability.
- **California Arrearages Payment Program**—\$1.2 billion one-time General Fund to relieve California households by addressing energy utility arrearages, which builds upon the \$1 billion in federal American Rescue Plan Act funds included in the 2021 Budget that supported over 1.5 million residential and commercial accounts.
- **Distributed Electricity Backup Assets**—\$550 million one-time General Fund to provide incentives to deploy new zero or low emission technologies, including fuel cells, at

existing or new facilities, and as replacements or to substantially improve the environmental performance of existing backup generators.

- **Demand Side Grid Support**—\$200 million one-time General Fund to support the development of demand-side grid support initiatives. These efforts will help reduce energy demand on the grid during peak energy times.
- **Long Duration Storage Incentives**—\$140 million one-time General Fund to invest in long duration storage projects throughout the state to support grid reliability. This investment will help with resilience in the face of emergencies, including wildfires, and provide a decarbonized complement to intermittent renewables, which will provide the state with additional energy storage options during periods of low renewable power availability.

LITHIUM VALLEY DEVELOPMENT

Lithium is becoming an increasingly critical resource as the state—and the world—moves toward a clean energy future to tackle the climate crisis. This metal is a crucial component of batteries needed to power electric vehicles, enable a 100-percent clean electric grid, and move the state's homes and industries away from fossil fuels.

California has abundant untapped lithium reserves, including in geothermal brine more than a mile underground near the Salton Sea. Building out a world-class battery manufacturing ecosystem in tandem with lithium production and processing would also increase economic opportunity in the Salton Sea region, delivering quality jobs and community benefits.

The Budget includes a statutory framework for local governments, residents, and disadvantaged communities to benefit from the development and extraction of lithium in the Imperial Valley and will also contribute to the maintenance, operations, and restoration of the Salton Sea.

The Budget includes a volume-based tax on lithium extraction that will take effect on January 1, 2023, with 80 percent of proceeds going to local governments and 20 percent towards Salton Sea restoration efforts and community-benefit projects in the region. The tax rate will be as follows: \$400 per ton for the first 20,000 tons of lithium carbonate equivalent that a firm extracts, \$600 per ton for the next 10,000 tons, and \$800 per ton for all lithium carbonate equivalent extracted over 30,000 tons. These rates

will be indexed to the California Consumer Price Index and will be adjusted annually starting on January 1, 2025.

The Budget also includes \$5 million designated for Imperial County, to be used for a county programmatic environmental impact report and a health impact assessment, and to support community outreach related to lithium development.

CAP-AND-TRADE EXPENDITURE PLAN

The Budget includes \$1.3 billion Greenhouse Gas Reduction Fund to support various programs that advance the state's greenhouse gas reduction and climate goals, while advancing equity and environmental justice.

SIGNIFICANT INVESTMENTS INCLUDE:

- **Zero-Emission Vehicle Investments**—\$676 million Greenhouse Gas Reduction Fund to support low-income consumer purchases and zero-emission trucks, buses and off-road equipment.
- **AB 617 Community Air Protection Program**—\$300 million (\$260 million Greenhouse Gas Reduction Fund and \$40 million General Fund) in 2022-23 and \$300 million General Fund in 2023-24 on a one-time basis for the Community Air Protection Program, which reduces emissions in communities with disproportionate exposure to air pollution through targeted air monitoring and community emissions reduction programs.
- **Organic Waste Infrastructure**—\$180 million one-time Greenhouse Gas Reduction Fund to advance organic waste infrastructure and support a circular economy that recognizes waste as a resource, shifting the state's focus to a more resilient and renewable economy in California.
- **Sea Level Rise**—\$120 million (\$80 million Greenhouse Gas Reduction Fund and \$40 million General Fund) in 2022-23 and \$300 million General Fund in 2023-24 for the Climate Ready Program for purposes of funding nature-based projects to address sea level rise.
- **Methane Satellites**—\$100 million Greenhouse Gas Reduction Fund on a one-time basis to expand the number of satellites launched for methane observations, which would provide weekly measurement of large methane emissions in the state and enhance enforcement capabilities. This data will allow California to identify the source of these emissions, work with programs to hold emitters accountable for

violations, and further reduce the amount of short-lived climate pollutants in the atmosphere.

SUSTAINABLE COMMUNITIES

The state is committed to building sustainable and equitable communities by creating and preserving housing in areas that are closer to neighborhood-serving amenities. Building housing in these locations supports the reduction of climate emissions and helps reduce the exposure of low-income Californians to the impacts of the climate crisis. To that end, the Budget invests \$925 million General Fund in housing development that also furthers the state's climate goals.

THESE INVESTMENTS INCLUDE:

- **Infill Infrastructure Grant Program**—\$425 million General Fund over two years to prioritize housing production on prime infill parcels in downtown-oriented areas, including brownfields.
- **Adaptive Reuse**—\$400 million General Fund over two years for adaptive reuse incentive grants. These grants will help remove cost impediments to adaptive reuse (e.g., structural improvements, plumbing/electrical design, exiting) and help accelerate residential conversions, with a priority on projects located in downtown-oriented areas.
- **State Excess Sites Development**—\$100 million General Fund over two years to expand affordable housing development and adaptive reuse opportunities on state excess land sites.

See the Housing and Homelessness Chapter for additional detail.

CLIMATE HEALTH

Climate change affects the health of every Californian, but some communities experience disproportionate public health impacts from climate change more than others. The Budget includes key investments to integrate and elevate health and equity into California's climate agenda.

SIGNIFICANT INVESTMENTS INCLUDE:

- **Climate and Health Resilience Planning**—\$25 million one-time General Fund for a grant program to bolster the actions of local health jurisdictions and develop regional Climate and Health Resilience Plans.
- **Climate, Health and Disease Monitoring**—\$10 million ongoing General Fund to establish a monitoring program to track emerging or intensified climate-sensitive health impacts and diseases.
- **Community Health Workers**—\$281.4 million one-time General Fund over three years to recruit, train, and certify 25,000 new community health workers by 2025, in areas such as climate health, homelessness, and dementia.

See the Health and Human Services Chapter and the Labor and Workforce Development Chapter for additional detail.

CLIMATE SCHOOLS AND RESEARCH

California's K-12 and higher education systems are critical in meeting the state's ambitious climate goals. The Budget includes significant investments in research that will support the next generation of innovations to address climate change, and serve as catalysts for expanded opportunity for all Californians. Additionally, the Budget includes infrastructure investments in K-12 and higher education that decarbonize these systems, reducing emissions, improving health of students, and lowering costs over the long term.

The Budget includes \$185 million one-time General Fund for research and initiatives to address climate change at the University of California, including:

- \$100 million for climate action research seed and matching grants, and grants for projects at UC Innovation and Entrepreneurship Centers to incentivize and expand climate innovation and entrepreneurship.
- \$47 million to support climate initiatives at the Riverside campus.
- \$20 million to support climate initiatives at the Santa Cruz campus.
- \$18 million to support climate initiatives at the Merced campus.

The Budget includes climate resilient infrastructure for K-12 schools and universities:

- \$1.5 billion one-time Proposition 98 to support greening K-12 school transportation, including electric school buses, as part of the broader acceleration of ZEVs.
- \$249 million over a three-year period (\$83 million each year, beginning in 2022-23) for the UC Berkeley Clean Energy Campus project.
- \$83 million one-time General Fund to support construction of the California State University (CSU) Bakersfield Energy Innovation Center.
- \$75 million one-time General Fund to support equipment and facilities upgrades at the CSU University Farms, which provide hands-on experience for career preparation in climate resilience, regenerative agriculture, animal welfare, food processing, and water and natural resources management.
- \$30 million one-time and \$3 million ongoing General Fund to continue supporting and expanding the Farm to School Program's investments to improve the health and well-being of California school children through integrated nutrition education and healthy food access.
- \$20 million one-time General Fund for a grant to Carnegie Science to support the Pasadena Climate Research Hub facility, which will house approximately 200 researchers focused on climate resilience.

For additional information on these investments, please see the K-12 Education Chapter and the Higher Education Chapter.

CLIMATE JOBS AND OPPORTUNITY

In addition to the significant investments outlined above, the Budget expands workforce training opportunities in climate-related fields so more Californians can participate in the state's economic growth. These investments will reduce harmful emissions in California's communities, and will support workers transitioning to new climate jobs and opportunities. The Budget includes \$315 million one-time General Fund over three years to continue expanding workforce strategies to reach its climate goals:

- **Oil and Gas Well Capping**—\$100 million one-time General Fund over two years to plug orphan or idle wells, decommission attendant facilities, and complete associated environmental remediation.

- **Well-Capping Workforce Pilot for Displaced Oil and Gas Workers**—\$20 million one-time General Fund to support a workforce training pilot to train displaced oil and gas workers in remediating legacy oil infrastructure, as the state aims to establish California as the leader in both well remediation activity and workforce training.
- **Displaced Oil and Gas Worker Pilot Fund**—\$40 million one-time General Fund for a pilot support fund to address the needs of oil and gas workers facing displacement.
- **Goods Movement Workforce Training Facility**—\$110 million General Fund over three years for a Goods Movement Training Center in Southern California.
- **Low Carbon Economy Workforce**—\$45 million General Fund in total over three years to restart the California Workforce Development Board's Low Carbon Economy Workforce grant program.

See the Labor and Workforce Development Chapter for additional detail.