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California's Climate Investments and High Road Workforce Standards

A Brief Prepared for the California State Senate Committee on Labor, Public Employment and Retirement

Summary

- **Workforce standards** – Workforce standards are proactive policy mechanisms embedded in state statutes, state contracts, and state regulations that leverage high quality jobs for disadvantaged and dislocated workers by enacting specific requirements regarding worker job quality and job access.
 - **Recent Developments** - Workforce standards are being used to a greater extent in California state policy in recent years, however many billions of dollars in annual state investments are currently not covered by standards, particularly investments in *manufacturing, operations, and services*. As a result, California is missing an important opportunity to attract high road firms and improve job quality for low-wage and disadvantaged workers.
 - **Recommendations** – In line with recommendations from the AB 398 Report, California climate spending agencies should work with the Labor Agency to adopt and implement workforce standards across current and future climate investments as appropriate. Statutory authority and staffing capacity changes may be necessary to achieve this goal.
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Introduction

Over the last 5 years, the California legislature, state agencies, and multiple administrations have committed to a vision of climate transition grounded in *high road economic development*. A well-known framework in the economic development literature, *the high road economic model* has become the basis of a number of laws, spending programs and state planning frameworks in California and in the US federal government.^{1, 2, 3} At base, the high road framework shoots for three deliverables in economic growth and development related to the climate transition: climate, equity, and high quality jobs.

Combined with California's body of state laws and jurisprudence, the US federal labor regime grants certain powers to the California legislature, the Governor and State agencies to proactively pursue high road jobs.

Workforce standards on state spending supplement and strengthen workforce standards on federal investment (BIL, IRA, CHIPS), specifically in areas of federal and state investment where workforce standards do not exist – such as investments in manufacturing, operations, and service work.

Given statutory limitations, the most *immediate, tangible, and legally feasible* domain in which California has unfulfilled power to create, sustain, and grow high road jobs at scale and quickly is through state spending and procurement power.

In turn, *workforce standards* are the set of policy tools that condition state spending to achieve high road jobs. The most immediate opportunity for increasing high road jobs in California's clean economy comes through attaching workforce standard policies to climate-related spending and procurement. The point can be taken one step further: without workforce standards, California policymakers cannot *ensure* that high road, middle class jobs for disadvantaged workers amount from our state's significant expenditures in both the public and private sides of the clean economy.

Furthermore, workforce standards on state spending supplement and strengthen workforce standards on federal investment (BIL, IRA, CHIPS), specifically in areas of federal and state investment where workforce standards do not exist – such as investments in manufacturing, operations, and service work.

Workforce Standards are Essential for Realizing Worker Equity

Workforce standards are *proactive policy mechanisms* embedded in state statutes, state contracts, and state regulations that leverage high quality jobs for disadvantaged and dislocated workers by enacting specific requirements regarding worker job quality and job access. Workforce standards set baseline market conditions on the *demand-side* of the labor market. With workforce standards, the state demarcates a *safe flying zone* for state contractors and subsidy recipients. Implied in workforce standards is a certain public ethic: public dollars should go to *responsible employers* that treat California

¹ California Workforce Development Board High Road Framework (2018). https://cwdb.ca.gov/wp-content/uploads/sites/43/2019/09/High-Road-ECJ-Brief_UPDATED-BRANDING.pdf

² EXECUTIVE ORDER N-79-20 (2020). <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf>

³ Department of Energy Office of Policy – Energy Jobs (2023). <https://www.energy.gov/policy/energy-jobs>

residents with dignity and respect, respect California’s laws, provide family-sustaining wages and benefits, and offer career opportunities to excluded and marginalized Californians.

Figure 1: High Road Conceptual Framework, from *Putting California on the High Road: A Jobs and Climate Action Plan for 2030* (2021)



Although workforce standards directly impact labor market demand, they also support healthy market dynamics among employers by ensuring baseline legal compliance and supportive working conditions. Workforce standards ward off destructive and short-sighted labor market practices and firmly ground competition in product quality, on-time delivery, skilled service, and quality control. Firms rooted in a legally sound, high product quality, high skill business strategy *benefit competitively* from workforce standards. Conversely, time and again, the advent of new business models and technology has shown that without safeguards in place, firms will subvert new markets with low road business plans premised on worker exploitation. Misclassification as a systemic feature of the trucking, TNC, and construction markets is a telling example.⁴

⁴ *Truck Driver Misclassification: Climate, Labor, and Environmental Justice Impacts* (2019).
<https://laborcenter.berkeley.edu/truck-driver-misclassification/>

Figure 2: Exemplary List of Workforce Standards for Transportation Industries, from *Advancing High Road Standards in Zero-Emission Transportation* (2021)⁵

HIRING AND WAGES

- Offer industry-specific or economy-wide wage and benefit standards that significantly exceed the California minimum wage or meet industry prevailing wages;
- Set specific targets to increase hiring, retention, and career paths for 'disadvantaged and dislocated workers,' including women, people of color, workers from local and low-income communities, workers impacted by fossil fuel transition, justice-involved workers, LGBTQ+ workers, and veterans;
- Require Project Labor Agreements, Community Workforce Agreements and/or Community Benefits Agreements for all zero-emission vehicle (ZEV) charging infrastructure and manufacturing facility construction projects; and
- Restrict temporary labor to temporary and short-term purposes only.

COMPLIANCE

- Ensure enforcement of all labor and employment laws;
- Ensure compliance with all applicable federal, state, and local environmental, health, and safety laws;
- Adopt requirements that compliance with clean vehicle rules and regulations are targeted to entities with common ownership or control over business operations;
- Make information disclosed by companies around meeting workforce standards and incentives publicly accessible; and
- Penalize and remedy violations of labor standards and protect against retaliation.

TRAINING AND APPRENTICESHIP

- Require all workers to be certified with suitable Minimum Industry Training Criteria;
- Invest in training and career pathways through apprenticeship programs and/or the High Road Training Partnership model; and
- Use certified apprenticeship programs where applicable, require contractually agreed-upon training, and/or comprehensively train workers for career pathways.

ORGANIZING

- Protect collective bargaining rights and ensure employer neutrality.

LEVERAGING PUBLIC SPENDING TO CREATE DEMAND

- Require these discrete high road workforce standards for all publicly funded solicitations greater than \$50,000 and for incentive programs with significant investments.

DOMESTIC SOURCING

- Adopt requirements for domestic production of batteries, cells, non-battery content, and zero-emission vehicles; and
- Adopt requirements that subsidized vehicles are assembled domestically.

Common workforce standards include wage and hiring standards, like prevailing wage requirements, or industry minimum wages; targeted hire requirements to leverage careers for disadvantaged and dislocated workers; skill and training requirements, such as apprenticeship programs, skilled and trained requirements, and contractually mandated training; the right to organize; project skilled labor agreements, like Project Labor Agreements and Community Workforce Agreements; and Request for Proposal criteria in state contracts that award points for job quality and access, such as the US Employment Plan.

⁵ *Advancing High Road Standards in Zero-Emission Transportation: Establishing a Framework and Recommendations for Workforce Standards* (2021). https://gridworks.org/wp-content/uploads/2021/07/Advancing-High-Road-Standards-report_FINAL.pdf

Workforce Standards are being used by the State, but many programs are not covered

Workforce standards have begun to catch on in California state policy in recent years, particularly in the last 5 years, with California legislators and agency policymakers recognizing the essential role of this tool in creating high quality jobs. The AB 398 report, *Putting California on the High Road: a Jobs and Climate Action Plan for 2030*, jointly published by the Labor Agency and the Governor's Office of Planning and Research (and edited by the UCB Labor Center) reflected on the essential relationship between workforce standards and equitable clean economy growth:

Public policy can encourage improvements in job quality through policies ... [that] support the high-road employers within an industry and help them attract and retain a skilled workforce by limiting competition based on low wages. Demand-side policies also include interventions to increase hiring of qualified workers from disadvantaged communities and to ensure that labor standards do not create barriers for historically excluded groups.⁶

The *Demand-side Workforce Policy Levers* section of the AB 398 report spends several pages identifying key workforce standards across critical state agencies, funding streams, and regulations.

As California's lead agency for climate change and energy transition, the Air Resources Board's most recent investment guidance also notably promotes workforce standards. The *Cap-and-Trade Auction Proceeds Fourth Investment Plan's* third priority recommendation is that state agencies "direct funding towards high-quality jobs and high road workforce development" and furthermore:

Incorporate job quality and job access measures (e.g., standards, requirements, and targets) across more investment types, prioritizing investment types that directly support or create jobs.⁷

Regarding agency rulemakings, CARB has led the way incorporating workforce standards into regulation, such as in the Advanced Clean Fleets Rulemaking, currently in the works, which requires that "Common Owners and Controller[s]" in the trucking industry purchase electric trucks, not misclassified contractors. The Public Utilities Commission has also adopted the Workforce Standards Decision (2018), attaching apprenticeship requirements to energy efficiency investments, and has proposed to adopt a Driver's Assistance Fund in the ongoing Clean Miles Standard rulemaking.

The legislature has also taken decisive action in recent years. A chart of notable workforce standards legislation (see below) notes particularly significant bills attaching workforce standards to various industries. Recent pronouncements from the 2022 Senate Climate Working Group, and the Future of Work Commission have also highlighted the need for workforce standards policies across state spending and subsidies.⁸

⁶ *Putting California on the High Road: a Jobs and Climate Action Plan for 2030* (2020). <https://cwdb.ca.gov/wp-content/uploads/sites/43/2020/09/AB-398-Report-Putting-California-on-the-High-Road-ADA-Final.pdf>

⁷ *Cap-and-Trade Auction Proceeds Fourth Investment Plan Fiscal Years 2022-23 through 2024-25* (2021). https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/Cap-and-Trade%20Auction%20Proceeds%20Fourth%20Investment%20Plan_FINAL.pdf

⁸ *Future of Work in California: A New Social Compact for Work and Workers* (2021). <https://www.labor.ca.gov/wp-content/uploads/sites/338/2021/02/ca-future-of-work-report.pdf>

Figure 3: Notable Workforce Standards Legislation Applicable to the Clean Economy Passed in California, 2020-2022

Program	Industry	Bill	Workforce Standard
CPUC NEM Program	Solar Construction	AB 2143 (2022)	Prevailing Wage Requirement
CPUC Community Solar	Solar Construction	AB 2316 (2022)	Prevailing Wage Requirement
DGS/CARB Electric School Bus	School Bus Manufacturing	SB 674 & Budget (2022)	Labor Peace and job quality requirements
SGC CERF	Multiple	SB 162 (2021)	“Labor Standards” TBD
CEC Equitable Building Decarbonization	Building Retrofitting	AB 209 (2022)	Prevailing wage requirement
Multiagency - All GGRF funded programs	Multiple	AB 680 (2021)	“Fair and Responsible” Standards (TBD) and CWA requirement
CARB Heavy Duty Trucking Funds	Truck Driving	AB 794 (2021)	Non-misclassification requirement
Climate Catalyst Fund - Transmission	Transmission Construction	AB 209 (2022)	PLA Requirement
CEC and CARB EV Infrastructure	EV Infrastructure Construction	AB 841 (2020)	EVITP certification requirement
CEC Renewable Power Plant Certification	Renewable Generation Construction	AB 205 (2022)	Skilled and Trained Requirement
CEC Renewable Manufacturing Certification	Manufacturing Plant Construction	AB 205 (2022)	Skilled and Trained Requirement

Next Steps for Administrative Architecture for Workforce Standards

There is a need for the administration and the legislature to work together to increase the state’s capacity to apply and enforce workforce standards across California’s climate regulations and investments. This need was called out particularly in the AB 398 report in the *Demand-side Workforce Policy Levers* section:

The California Workforce Development Board should develop a technical assistance team to help agencies responsible for implementing climate policy as they seek to incorporate high-road workforce interventions. Agencies administering climate investments and policies have limited experience and training to assess when, where, and how to incorporate the tools and approaches outlined in this report.

This need is particularly deeply felt in regulatory proceedings and in investment programs that impact non-construction industries, where existing state processes have *not meaningfully improved job quality or articulated a governance framework for adopting workforce standards at scale*.

Non-construction industries include service, operations and manufacturing industries, with notable areas of climate-related work including – auto manufacturing, battery manufacturing, critical minerals extraction, truck driving, TNC driving, power plant operations, transit operations, wind and solar supply chain manufacturing; glass, metal and cement manufacturing, wildlands management, urban forestry,

and other industries. Multi-billion dollar public investments are flowing into these industries every year without checks to ensure Californians benefit from high quality jobs.

Workforce standards in these industries could ensure critical outcomes including:

- Growing the California base of stable middle class job in clean technology manufacturing and operations prioritizing career opportunities for workers of color, women and LGBTQ+ workers, justice-impacted workers, and other disadvantaged workers.
- Leveraging procurement power to dramatically improve working conditions in the lowest road industries like contract trucking, wildlands management, janitorial services, etc.
- Encouraging equitable and strategic investment in trade-exposed California firms and industrial clusters incubated in California that may take capital investment elsewhere, e.g. batteries.

These industries do not benefit from the body of statutes and the governance framework that has been established for the construction industry, notably the public works and prevailing wage system administered by the Labor Agency; Project Labor Agreement and Community Workforce Agreement requirements codifications, and the Skilled and Trained Workforce Statute. These structures have established a foundation for embedding workforce standards in clean economy construction investments and regulations.

Despite the successful application of workforce standards in some construction investments, application of these standards is not uniform or comprehensive. Single family home improvements and rehabilitation are excluded from California's public works/prevaling wage statutes. Solar panel installations, single family home retrofits, weatherization, building decarbonization improvements and other building upgrades are notably excised from the public works/prevaling wage requirements. This omission has led to the proliferation of low-wage, low-road contractors in the weatherization, energy efficiency and home solar sectors.

Workforce Standards Gaps in the Budget

The legislature and Governor appropriated roughly \$10B in the 2022 budget towards climate-related programs, and planned a further \$42 Billion investment over the next 5 years (see Appendix 1). Additionally, \$6.1B was appropriated between 2021 and 2022 to state transportation agencies (Appendix 2). Due to expected reduced receipts from taxes, this year's climate budget allocations will likely be below the \$10 Billion mark. Significant climate spending is not accounted for in these figures however. Programs funded by ratepayers, like energy efficiency programs, or programs funded by previous budget allocations do not count towards this tally.

Workforce standards cover the segment of funds conditioned by the bills noted in Figure 3, any publicly funded or subsidized construction covered by the California Public Works statute, and any other workforce standards applied through force of administrative procedure, regulation, or legislation not described above.

Figure 4: Examples of Recent Subsidies without non-construction Workforce Standards, or where prevailing wage is excluded on construction

California Energy Commission	
Funding	\$590M in '22 climate package funding; \$1.2B in '23 proposed spending
Industries subsidized (manufacturing, operations, services)	Carbon removal, transmission, distributed electricity backup, Long Duration Storage, food production, offshore wind infrastructure, building decarbonization, industrial decarbonization, hydrogen production
California Public Utilities Commission	
Funding	\$900M in proposed '23-'24 funding
Industries Subsidized	\$900M for residential solar and storage possibly exempt from prevailing wage
CalFire	
Funding	\$1.2B 2022 Wildfire Package
Industries Subsidized	Wildlands management, forest management, home hardening/inspection, land management, remote sensing
CALTRANS/CALSTA	
Funding	\$6B in 2022-23 funding
Industries Subsidized	Transit manufacturing, transit operations, transit services, road and transportation materials manufacturing (e.g. cement, structural steel, rebar)

Comparing climate budget programs covered and uncovered by workforce standards, as described, reveals the follow critical budget gaps:

- Construction programs exempted from public works statutes.
- Construction covered by public works, but uncovered by more rigorous standards, such as Community Workforce Agreements, which mandate job quality beyond wages, and leverage access for excluded and disadvantaged workers into high road construction careers.
- **No workforce standards whatsoever currently cover climate programs that subsidize operations work (other than trucking), manufacturing, or services.**

Next Steps

Considering the findings and recommendations of the AB 398 report, the legislature should prioritize two critical actions that the report called for: (1) strengthening interagency governance and requirements to administer workforce standards (“administrative architecture”); and (2) provide the critical staffing to make such administrative architecture effective, including implementation, compliance, and enforcement support.

- 1) **The Labor and Workforce Development Agency (LWDA) and specifically the California Workforce Development Board as the expert agency should be empowered to assist implementing,**

procuring, and spending agencies to develop and implement workforce standards, specifically in critical gap areas.

Presently, California state agencies with powers to attach workforce standards to climate regulation and spending are not the same agency as the one with workforce policy design, enforcement and analysis expertise (LWDA). The Air Resources Board, the Energy Commission, the Public Utilities Commission, and other climate spending and regulatory agencies do not primarily regulate for workforce outcomes; therefore, these agencies have cited to challenges in efficiently and effectively designing, adopting, and enforcing workforce standards successfully.

Consequently, a spectrum of relatively formal to informal partnerships have been formed between the Labor Agency and climate implementing agencies to advise on workforce policy and workforce standard development. Notable examples include MOUs with the CEC and CPUC, along with consultation roles with CARB and DGS. The passage of AB 680 stands as a high water mark – requiring the Labor Agency to assist CARB in the development of workforce “fair and responsible” standards on a required timeline.

Policy design and enforcement powers could be delegated to LWDA so that in partnership with implementing agencies, LWDA may, as the expert regulator, design and assist in enforcing workforce standards. Spending agencies could be required to work with CWDB to develop, enact, and enforce tailored workforce standards. AB 680 at CARB stands a promising, if early, example of such a structured relationship.

- 2) The Labor Agency and delegated units within it need more staffing capacity to work with implementing agencies to design and enforce workforce standards (see above).**
- 3) More research capacity is needed to identify all programs that would benefit from workforce standards policymaking and to delineate specific workforce standards that may be most applicable.**

In conclusion, the changes suggested above have the potential to unlock major economic returns to low-income Californians, workers of color, women, and other excluded workers, incumbent workers in the clean economy, dislocated workers in the fossil fuel economy, to the state as rising incomes increase tax receipts, and to homegrown California firms and industries.

APPENDIX 1 – 2022 California Climate Budget Addendum⁹

Cap and Trade (Discretionary Funding)

(Dollars in Millions)*

Department	Program	2022-23
Air Resources Board	AB 617 - Community Air Protection	\$210
	AB 617 - Local Air District Implementation	\$50
	AB 617 - Technical Assistance to Community Groups	\$10
	Community Air Monitoring	\$30
	ZEV Package - Clean Cars 4 All & Equity	\$126
	ZEV Package - HVIP	\$600
	Lower Emission Boats	\$20
	HFC Refrigerants	\$10
	Wood Stoves	\$5
	Methane Monitoring	\$105
CalRecycle	Organic Waste Infrastructure	\$180
	Methane Reductions from Landfills and Wastewater Treatment	\$10
California Department of Food and Agriculture	Methane Reduction: Cattle Feed	\$10
	Alternative Manure Management Program	\$20
California Energy Commission	Cal SHAPE	\$20
CSD	Low-Income Weatherization Program	\$15
Coastal Conservancy/OPC	Sea Level Rise	\$155
Total		\$1,576

*Does not include baseline support items for various departments.

⁹ Budget Addendum (2022). <https://ebudget.ca.gov/2022-BudgetAddendum.pdf>

Wildfire and Forest Resilience Expenditure Plan
(Dollars in Millions)

Investment Category	Department	Program	Early Action 2020-21	2021-22	2022 Wildfire Package (over two years)	Total
Resilient Forests and Landscapes	CAL FIRE	Forest Health Program	\$155	\$160	\$240	\$555
		Forest Improvement Program for Small Landowners	\$10	\$40	\$25	\$75
		Forest Legacy	\$6	\$10	\$33	\$49
		Nursery	\$2	\$9	\$4	\$15
		Urban Forestry	\$10	\$20	\$30	\$60
		Tribal Engagement	\$1	\$19	\$20	\$40
		Post-Fire Reforestation and Regeneration	-	-	\$100	\$100
	Various	Stewardship of State-Owned Land	\$30	\$145	\$130	\$305
Wildfire Fuel Breaks	CAL FIRE	CAL FIRE Unit Fire Prevention Projects	\$10	\$40	\$40	\$90
		Fire Prevention Grants	\$123	\$120	\$232	\$475
		Prescribed Fire and Hand Crews & Contract Counties	\$15	\$49	\$70	\$134
	California Conservation Corps	Fuel Reduction Crews	-	\$20	\$40	\$60
		Residential Centers	-	\$7	-	\$7
Community Hardening	Cal OES & CAL FIRE	Home Hardening	\$25	-	\$25	\$50
	CAL FIRE	Defensible Space Inspectors	\$2	\$13	\$10	\$25
	CAL FIRE & University of California	Land Use Planning and Public Education Outreach	-	\$7	\$9	\$16
Regional Capacity	Department of Conservation	Regional Forest Capacity	\$50	\$60	\$40	\$150
	Conservancies	Project Implementation in High-Risk Regions	\$69	\$139	\$170	\$378
Science-Based Management	CAL FIRE	State Demonstration Forests	-	-	\$10	\$10
		Monitoring and Research	\$3	\$20	\$15	\$38
		Prescribed Fire Liability Pilot	-	\$20	-	\$20
		Interagency Forest Data Hub	-	\$10	-	\$10
	Natural Resources Agency	LiDAR Remote Sensing	-	\$25	\$5	\$30
	Air Resources Board and Water Board	Prescribed Fire and Water Permitting	-	\$4	\$8	\$12
Economic Development of the Forest Sector	IBank	Climate Catalyst Fund	\$16	\$33	-	\$49
		Workforce Training	\$6	\$18	\$30	\$54
	CAL FIRE	Transportation Grants for Woody Material	-	-	\$10	\$10
	Office of Planning and Research	Market Development	\$3	-	\$4	\$7
Total			\$536	\$988	\$1,300	\$2,824

Drought Resilience and Response

(Dollars in Millions)

Investment Category	Department	Program	2021 Package Total	2022 Package Total	Total
Immediate Drought Support	Department of Water Resources	Small Water Suppliers Drought Relief & Urban Water Management Grants	\$484	\$300	\$784
	State Water Resources Control Board	Water Rights Modernization and Drought Resilience	\$0	\$61	\$61
	Department of Social Services	Drought Food Assistance	\$0	\$23	\$23
	Various	Data, Research, and Communications	\$127	\$142	\$269
		Drought Technical Assistance and Emergency Drought Response	\$57	\$176.3	\$233
		Drought Permitting, Compliance, Curtailments and Water Right Enforcement	\$43	\$8	\$51
Drinking Water, Water Supply and Reliability, Flood	State Water Resources Control Board	Drinking Water/Wastewater Infrastructure and State Revolving Fund	\$1,300	\$400	\$1,700
		PFA's Support	\$100	\$100	\$200
		Water Recycling/Groundwater Cleanup	\$400	\$400	\$800
	Department of Water Resources	Water Storage	\$0	\$500	\$500
		Salton Sea	\$220	\$0	\$220
		Water Conveyance	\$200	\$0	\$200
		Flood and Dam Safety	\$638	\$100	\$738
		Aqueduct Solar Panel Pilot Study	\$20	\$15	\$35
		Watershed Climate Studies	\$25	\$0	\$25
	Natural Resources Agency	Clear Lake Rehabilitation	\$5.7	\$0	\$6
Conservation/ Agriculture	Department of Water Resources	SGMA Implementation	\$300	\$56	\$356
		Agriculture and Delta Drought Response Programs	\$8	\$60	\$68
		Relief for Small Farmers	\$0	\$25	\$25
	Department of Food and Agriculture	On-farm Water Use and Agriculture Technical Assistance	\$5	\$15	\$20
		State Water Efficiency and Enhancement Program	\$100	\$60	\$160
	Department of Conservation	Multi-Benefit Land Repurposing	\$50	\$40	\$90
	Various	Water Conservation Programs (Small and Urban) and Turf Replacement	\$0	\$185	\$185
Habitat/ Nature-Based Solutions	Department of Fish and Wildlife/ Department of Water Resources	Fish and Wildlife Protection	\$0	\$175	\$175
		Improving Drought Resiliency on State-Owned Land and Migratory Bird Habitat	\$8	\$25	\$33
		Studying Salmon and Tribal Co-Management Activities	\$0	\$7.3	\$7.3
		Climate Induced Hatchery Upgrades	\$33	\$17	\$50
	Department of Water Resources	Aquatic Habitat and Drought Resilience and Expediting Large Scale Habitat	\$0	\$149	\$149
	Various	Additional Nature-Based Solutions and Watershed Resilience	\$1,033	\$544.5	\$1,578
Total			\$5,157	\$3,584	\$8,741

Energy Reliability, Relief and Clean Energy Investments
(Dollars in Millions)

Investment Category	Program	Agency	2021-22	2022-23	2023-24	2024-25	2025-26	Multiyear Total
Ratepayer Relief	California Arrearage Payment Program	CSD	\$0	\$1,200	\$0	\$0	\$0	\$1,200
	Capacity Building Grants	CPUC	\$0	\$30	\$0	\$0	\$0	\$30
Reliability	Investments in Strategic Reliability Assets	DWR	\$1,500	\$700	\$20	\$75	\$75	\$2,370
	Support for Reliability	DWR	\$0	\$3	\$0	\$0	\$0	\$3
	DOE Grid Resilience Match	CEC	\$0	\$5	\$0	\$0	\$0	\$5
	Distributed Electricity Backup Assets	CEC	\$550	\$0	\$100	\$25	\$25	\$700
	Demand Side Grid Support	CEC	\$200	\$0	\$95	\$0	\$0	\$295
Clean Energy	Carbon Removal Innovation	CEC	\$0	\$50	\$50	\$0	\$0	\$100
	Residential Solar & Storage	CPUC	\$0	\$0	\$900	\$0	\$0	\$900
	Transmission Financing	IBank	\$0	\$200	\$50	\$0	\$0	\$250
	Incentives for Long Duration Storage	CEC	\$0	\$140	\$240	\$0	\$0	\$380
	Distributed Energy Workload	CEC	\$0	\$1	\$1	\$1	\$1	\$5
	Energy Modeling to Support California's Energy Transition	CEC	\$0	\$7	\$0	\$0	\$0	\$7
	AB 525 Implementation	Various	\$0	\$4	\$0	\$0	\$0	\$4
	Oroville Pump Storage	DWR	\$0	\$100	\$140	\$0	\$0	\$240
	Food Production Investment Program	CEC	\$0	\$25	\$50	\$0	\$0	\$75
	Offshore Wind Infrastructure	CEC	\$0	\$45	\$0	\$0	\$0	\$45
	Equitable Building Decarbonization	CEC	\$0	\$112	\$665	\$53	\$92	\$922
	Equitable Building Decarbonization - TECH Initiative	PUC	\$0	\$50	\$95	\$0	\$0	\$145
	Equitable Building Decarbonization - Accelerating Adoption of Low-GWP Refrigerants	CARB	\$0	\$20	\$20	\$0	\$0	\$40
	Industrial Decarbonization	CEC	\$0	\$100	\$0	\$0	\$0	\$100
	Hydrogen Grants	CEC	\$0	\$100	\$0	\$0	\$0	\$100
	Hydrogen Hub	GO-Biz	\$0	\$5	\$0	\$0	\$0	\$5
	Energy Data Infrastructure & Analysis	CEC	\$0	\$5	\$0	\$0	\$0	\$5
Total Package			\$2,250	\$2,902	\$2,426	\$154	\$193	\$7,926

Extreme Heat
(Dollars in Millions)

Plan or Framework Category	Department	Program	2022-23	2023-24	Total
Cool Communities	Strategic Growth Council	Community Resilience Centers	\$85	\$85	\$170
		Community Resilience and Heat Program	\$25	\$50	\$75
	CAL FIRE	Green Schoolyards (Urban Forestry)	\$17	\$33	\$50
Protecting Vulnerable Populations and Ecosystems	Community Services & Development	Farmworker Low-Income Weatherization Program	\$15	\$0	\$15
	Department of Public Health		\$3	\$0	\$3
	Department of Industrial Relations	Enhanced Protections for Vulnerable Populations	\$8	\$8	\$16
	Department of Social Services		\$2.75	\$5.75	\$8.5
	Department of Food and Agriculture	Animal Mortality Management Program	\$0.6	\$0.6	\$1.2
		Origin Inspection Program	\$0.25	\$0.25	\$0.5
	Department of Pesticide Regulation		\$1.075	\$1.575	\$2.65
		Integrated Pest Management Technical Assistance	\$1.075	\$1.575	\$2.65
Increasing Public Awareness	Office of Planning and Research	Community-Based Public Awareness Campaign	\$6	\$14	\$20
Total			\$165	\$200	\$365

Nature-Based Solutions
(Dollars in Millions)

Investment Category	Department	Program	2022-23	2023-24	2024-25	Total
Nature-Based Solutions Programs	Wildlife Conservation Board	Forest Conservation Program				
		Oak Woodlands Conservation Program				
		California Desert Conservation Program				
		Rangeland, Grazing Land and Grassland Protection Program	\$150	\$95	\$0	\$245
		California Riparian Habitat Conservation Program				
		Natural and Working Lands Climate Adaptation and Resiliency Program				
	Department of Fish & Wildlife	Nature-Based Solutions Wetlands Restoration Program	\$54	\$0	\$0	\$54
	Delta Conservancy		\$36	\$0	\$0	\$36
Supporting Regional Action	Department of Conservation	Multi-Benefit Land Repurposing Program	\$0	\$20	\$0	\$20
	Department of Food & Agriculture	Healthy Soils Program	\$0	\$10	\$0	\$10
	State Conservancies	Support for Nature-Based Solutions	\$70	\$100	\$0	\$170
	Department of Fish and Wildlife & Santa Monica Mountains Conservancy	Wildlife Corridors (including Liberty Canyon)	\$52	\$0	\$0	\$52
	Department of Fish and Wildlife	Natural Community Conservation Program Planning and Land Acquisition	\$36	\$0	\$0	\$36
	Department of Conservation	Climate Smart Land Management Program	\$14	\$6	\$0	\$20
Expanding Educational and Economic Opportunities for Youth Climate Leaders	Wildlife Conservation Board	Resource Conservation Investments Strategies	\$2	\$3	\$0	\$5
	Conservation Corps	Local and Tribal Nature-Based Solutions Corps	\$38	\$11	\$0	\$49
Partnering with California Native American Tribes	Natural Resources Agency	Tribal Nature-Based Solutions Program	\$70	\$30	\$0	\$100
		Tribal Nature-Based Solutions Staffing	\$1	\$1	\$1	\$3
Additional Strategic Investments	CalRecycle	Compost Permitting Pilot Program	\$7.5	\$0	\$0	\$7.5
	Natural Resources Agency	Nature-Based Solutions Partnerships and Improvements	\$2	\$0	\$0	\$2
		CA Nature Support	\$0.25	\$0.25	\$0	\$0.5
		Redondo Beach Wetlands Restoration	\$10	\$0	\$0	\$10
	Wildlife Conservation Board	San Joaquin Valley Flood Plain Restoration	\$40	\$0	\$0	\$40
	State Coastal Conservancy	San Francisco Bay Wetlands Support	\$11	\$0	\$0	\$11
	State Coastal Conservancy & Ocean Protection Council	Sea Level Rise	\$75	\$152	\$19	\$246
	Total		\$669	\$428	\$20	\$1,117

Appendix 2 – 2021 & 2022 Transportation Budgets¹⁰

¹⁰ The 2023-24 Budget: Proposed Budget Solutions in Transportation Programs (2023).
<https://lao.ca.gov/Publications/Report/4676>

Recent and Planned Augmentations for Transportation Programs

General Fund (In Millions)

Program	Department	'21-'22 ^a	'22-23	'23-24	'24-'25	'25-'26	Totals
Transportation Infrastructure Package		\$5,400	—	\$2,100	\$2,000	—	\$9,500
TIRCP	CalSTA ^b	\$3,650 ^c	—	—	—	—	\$3,650
Active Transportation Program	Caltrans ^d	1,050	—	—	—	—	1,050
Grade separation projects within TIRCP	CalSTA/Caltrans ^e	350	—	—	—	—	350
Local climate adaptation programs	Caltrans ^b	200	—	—	—	—	200
Highways to Boulevards Pilot Program	Caltrans	150	—	—	—	—	150
Population-based TIRCP	CalSTA	—	—	\$2,000	\$2,000	—	4,000
Clean California Local Grant Program	Caltrans	—	—	100	—	—	100
Supply Chain Package		—	\$670	\$650	\$50	\$10	\$1,380
Port and Freight Infrastructure Program	CalSTA	—	\$600	\$600	—	—	\$1,200
Supply chain workforce campus	CWDB	—	30	40	\$40	—	110
Port operational improvements	GO-Biz	—	30	—	—	—	30
Increased commercial driver's license capacity	DMV	—	10	10	10	\$10	40
Totals		\$5,400	\$670	\$2,750	\$2,050	\$10	\$10,880

^a Funding provided in summer 2022 but accounted for as part of 2021-22 budget.

^b CTC also provided small amount of total funding in 2022-23 and 2023-24 for administrative-related activities.

^c Includes \$300 million dedicated to adapting certain rail lines to sea-level rise, as well as \$1.8 billion for projects in Southern California and \$1.5 billion for projects in Northern California.

^d CTC also has role in allocating funding to projects.

^e CalSTA is responsible for awarding funds, but a portion of funding is included in Caltrans' budget to reflect awards to projects on the state highway system.

TIRCP = Transit and Intercity Rail Capital Program; CalSTA = California State Transportation Agency; Caltrans = California Department of Transportation; CWDB = California Workforce Development Board; Go-Biz = Governor's Office of Business and Economic Development; DMV = Department of Motor Vehicles; and CTC = California Transportation Commission.