

## CLIMATE CHANGE

**C**limate change threatens California’s economy, environment, and public health. The state ended 2016 having experienced a fifth year of drought, vast tree mortality, and one of the hottest years on record.

The overwhelming majority of scientists have concluded that greenhouse gas emissions cause climate change and recommend that these emissions be reduced to 80 percent below 1990 levels by 2050 to avert catastrophic environmental and economic impacts. Beginning with the passage of the California Global Warming Solutions Act of 2006 (AB 32), the state has enacted decisive measures to reduce greenhouse gas emissions. With AB 32, the state adopted a three-pronged approach to reducing greenhouse gas emissions: employing standards and regulations, emission reduction incentives through grant programs, and a market-based compliance mechanism known as Cap and Trade. The Cap and Trade Program sets a statewide limit on the greenhouse gas emissions sources responsible for 85 percent of California greenhouse gases.

In 2012, the state held its first Cap and Trade auction of emission allowances and subsequently developed a comprehensive plan to invest proceeds from the Cap and Trade auctions to reduce greenhouse gas emissions statewide, including directing at least 25 percent of spending to benefit disadvantaged communities. In 2015, the Governor introduced the most ambitious 2030 climate target in North America—a reduction of greenhouse gas emissions to 40 percent below 1990 levels—and the Legislature codified this target with the passage of Chapter 249, Statutes of 2016 (SB 32).

Achieving these ambitious and necessary environmental goals while continuing to expand the state's strong economy requires working with communities to implement cost-effective solutions to reduce greenhouse gas emissions. In December 2016, the Air Resources Board released the discussion draft of the Scoping Plan, providing a blueprint for reaching 2030 climate targets. The Plan evaluates three scenarios for meeting the 2030 target. One scenario considers sector-specific emissions reductions through traditional command and control regulations, another considers a carbon tax, and the third considers continuation of the Cap and Trade Program. Consistent with the legislative directive in Chapter 250, Statutes of 2016 (AB 197), to prioritize direct emission controls, the Plan calls for direct reductions at refineries. To complement these direct reductions, an ongoing priority for the state will be to find ways to reduce toxic air contaminants and criteria pollutants from large emitters.

The Cap and Trade Program clearly represents the most flexible and cost-effective approach to continue reducing greenhouse gases by allowing the state's private sector to determine appropriate paths to meet emissions reductions over the next 13 years.

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### **CAP AND TRADE EXPENDITURE PLAN**

To date, the state has appropriated approximately \$3.4 billion in Cap and Trade auction proceeds for programs that reduce or sequester greenhouse gases by providing individuals, households, communities, and regions more transit options, modern housing near jobs and services, additional tree cover, forest and watershed improvements, healthy soils, recycling opportunities, and housing upgrades to cut energy use (see Figure CLI-01). Cap and Trade funding has allowed the state to leverage approximately \$3.2 billion in federal funds to begin the development of the nation's first high-speed rail line. In addition, with Cap and Trade proceeds from the electric utility sector, over 10.8 million households have received climate credits on their bills twice per year since 2014 to reduce by over \$2 billion the impact of changing household electric utility costs.

Over the past year, Cap and Trade auctions have experienced significant volatility. After several consecutive auctions that generated over \$500 million in proceeds, the May and August auctions in 2016 generated only \$10 million and \$8 million, respectively. However, the most recent auction in November 2016 generated \$364 million.

One of the factors that may have contributed to this revenue volatility is the perceived legal uncertainty about Cap and Trade beyond 2020. Consequently, the Administration

Figure-CLI-01  
**Cap and Trade Expenditures To Date**  
(Dollars in Millions)

<i>Investment Category</i>	<i>Department</i>	<i>Program</i>	<i>Amount</i>
Sustainable Communities & Clean Transportation	High-Speed Rail Authority	High-Speed Rail Project	\$800
	State Transit Assistance	Low Carbon Transit Operations	\$135
	Transportation Agency	Transit and Intercity Rail Capital Program	\$380
	Strategic Growth Council	Affordable Housing and Sustainable Communities Program	\$570
	Caltrans	Active Transportation	\$10
	Strategic Growth Council	Transformative Climate Communities Program & Technical Assistance	\$142
	Air Resources Board	Low Carbon Transportation	\$688
Short-Lived Climate Pollutants	Air Resources Board	Black Carbon Woodsmoke	\$5
	Cal Recycle	Waste Diversion	\$72
	Department of Food and Agriculture	Dairy Digesters & Alternative Fuels	\$65
Carbon Sequestration	CAL FIRE	Healthy Forests	\$49
		Urban Forestry	\$33
	Department of Fish and Game	Wetlands Restoration	\$29
	Department of Food and Agriculture	Climate Smart Agriculture - Healthy Soils	\$8
	Natural Resources Agency	Urban Greening	\$80
Energy Efficiency/ Renewable Energy	Department of Community Services and Development	Energy Efficiency Upgrades/ Weatherization	\$174
	Department of Water Resources	Water Use Efficiency	\$70
	Department of Food and Agriculture	State Water Efficiency and Enhancement Program	\$68
<b>Total</b>			<b>\$3,378</b>

proposes legislation to confirm the Air Board's authority, through a two-thirds urgency vote, to administer Cap and Trade auctions beyond 2020.

The Budget proposes a \$2.2 billion Cap and Trade Expenditure Plan to be allocated after legislation confirming the Air Board's authority to administer the Cap and Trade Program beyond 2020 is enacted through a two-thirds vote (see Figure CLI-02). The Budget builds upon the investment categories funded in the 2016 Cap and Trade agreement, such as short-lived climate pollutants, carbon sequestration, low-carbon transportation, and transformative climate communities. The Cap and Trade Expenditure Plan also includes \$500 million for the Administration's proposed Transportation package. Consistent with the provisions of Chapter 36, Statutes of 2014 (SB 862), the Budget

Figure CLI-02  
**2017-18 Cap and Trade Expenditure Plan**  
 (Dollars in Millions)

<i>Investment Category</i>	<i>Department</i>	<i>Program</i>	<i>Amount</i>
Continuous Appropriation	High-Speed Rail Authority	High-Speed Rail Project	\$375
	State Transit Assistance	Low Carbon Transit Operations	\$75
	Transportation Agency	Transit and Intercity Rail Capital Program	\$150
	Strategic Growth Council	Affordable Housing and Sustainable Communities Program	\$300
Transportation Package	Transportation Agency	Transit and Intercity Rail Capital Program	\$500
	Caltrans	Active Transportation	
50 Percent Reduction in Petroleum Use	Air Resources Board	Low Carbon Transportation	\$363
Transformational Climate Communities	Strategic Growth Council	Transformative Climate Communities	\$142
		Technical Assistance & Outreach	
Short-Lived Climate Pollutants	Air Resources Board	Black Carbon Woodsmoke	\$95
	Cal Recycle	Waste Diversion	
	Department of Food and Agriculture	Dairy Digesters	
Carbon Sequestration	CAL FIRE	Healthy Forests	\$127.5
		Urban Forestry	
	Department of Food and Agriculture	Climate Smart Agriculture - Healthy Soils	
	Natural Resources Agency	Urban Greening	
Energy Efficiency/ Renewable Energy	Department of Community Services and Development	Energy Efficiency Upgrades/ Weatherization	\$27.5
	Department of Food and Agriculture	State Water Efficiency and Enhancement Program	
<b>Total</b>			<b>\$2,155</b>

also reflects \$900 million, or 60 percent of projected auction proceeds, in continuously appropriated funds for high-speed rail, affordable housing, sustainable communities, and public transit.

Of the \$1.3 billion in non-continuously appropriated funds, \$863 million is proposed for transportation programs to lower emissions in the sector that represents the largest share of statewide emissions at nearly 40 percent. This funding could support a reduction in housing and transportation costs through the development of transit-oriented development that brings jobs and housing closer together, as well as

provide a substantial investment in incentives for electric vehicles and the development of in-state low-carbon biofuels. An additional \$392 million is proposed for programs that could expand the amount of green spaces and new and upgraded housing in the state's disadvantaged and low-income communities, reduce pollution at landfills and provide new recycling jobs, improve the condition of the state's forests, and enhance agricultural water conservation. Funding for these programs will be allocated only upon legislative confirmation of the Air Board's authority, through a two-thirds vote, to administer Cap and Trade auctions beyond 2020.

The state embraces the leadership role it has long held in strategic and bold climate policies. The formal extension of Cap and Trade will demonstrate that climate action at the sub-national level will continue.

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## **BEVERAGE CONTAINER RECYCLING PROGRAM REFORM**

Combatting climate change requires strategies to reduce the amount of landfilled waste and increase recycling for multiple types of materials. Recycling reduces greenhouse gas emissions by lessening the need for natural resource extraction, saving energy in the manufacturing of new products and minimizing landfill emissions.

Over the past 30 years, the Beverage Container Recycling Program, which is administered by the Department of Resources Recycling and Recovery (CalRecycle), has raised consumer awareness of the environmental impacts of littering and the benefits of recycling single-use beverage containers. However, the program faces significant challenges, prompted by changes in consumer products and behavior, developments in recycling systems, and fluctuations in the global commodities market.

To maximize the environmental and economic benefits of recycling beverage containers, the program requires comprehensive reform that aligns with the state's climate change goals, the state's 75 percent waste diversion goal, and fiscal sustainability based on the following principles:

- **Improving Recycling and Remanufacturing**—The program has been successful in its initial goal of reducing litter by providing recycling collection opportunities for consumers. However, collection does not ensure that a product is recycled into a new commodity. Future investments should be focused on creating clean, recyclable streams of material, which will improve the recycling and remanufacturing segments of the current system.

- **Sharing Responsibility**—Historically, the consumer has shouldered most of the financial burden to sustain the program. Program responsibilities and financing should be rebalanced among all program participants.
- **Enhancing Adaptability and Sustainability**—Increases in the recycling rate have resulted in a structural deficit in the Beverage Container Recycling Fund. In addition, the program does not respond quickly to fluctuations in the marketplace. The program must be both nimble and fiscally sustainable.

The Administration is committed to collaborating with stakeholders on a comprehensive reform package. To that end, CalRecycle proposes a policy framework that outlines key components of reform.