

# ENVIRONMENTAL PROTECTION

The California Environmental Protection Agency works to restore, protect, and enhance environmental quality. The Agency coordinates the state's environmental regulatory programs to provide fair and consistent enforcement of the law. The Budget proposes total funding of \$3.9 billion for all programs included in this Agency.

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## COMBATTING CLIMATE CHANGE

In 2015, California advanced climate change goals beyond 2020 with several ambitious and sweeping policies to solidify California's role as a global leader in the fight against climate change.

In January, the Governor's inaugural address introduced five key targets to reduce greenhouse gas (GHG) emissions:

- Increase electricity derived from renewable sources to 50 percent.
- Reduce petroleum use in cars and trucks by up to 50 percent.
- Double the rate of energy efficiency savings in existing buildings, and make heating fuels cleaner.
- Reduce the release of short-lived climate pollutants, such as methane and black carbon.
- Increase carbon sequestration on farms and rangelands, and in forests and wetlands.

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In April, the Governor issued Executive Order B-30-15 establishing a GHG emissions reduction target for the state of 40 percent below 1990 levels by 2030. The Legislature subsequently enacted and the Governor signed far-reaching clean energy legislation, Chapter 547, Statutes of 2015 (SB 350), to double the rate of energy efficiency savings in California buildings, generate half of the state's electricity from renewable sources by 2030, and establish widespread transportation electrification.

Throughout the year, California worked with subnational governments worldwide on an agreement known as the "Under 2 MOU," in which jurisdictions agreed to take steps to limit temperature increases to less than two degrees Celsius by 2050—the warming threshold at which scientists predict that dangerous climate disruptions will occur. Over 123 jurisdictions representing more than 720 million people and \$19.9 trillion in combined Gross Domestic Product—equivalent to more than a quarter of the global economy—have signed the agreement. In December, 196 nations reached a historic global climate agreement at the United Nations Conference of the Parties in Paris to limit temperature increases to below two degrees Celsius.

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

The Budget supports the global climate pact, California's leadership role in the Under 2 MOU and other subnational agreements, as well as SB 350, by proposing a \$3.1 billion Cap and Trade Expenditure Plan that will reduce GHG emissions through programs that support clean transportation, reduce short-lived climate pollutants, protect natural ecosystems, and benefit disadvantaged communities (see Figure EPA-01). The \$3.1 billion Expenditure Plan reflects the balance of auction proceeds that were not appropriated in 2015-16, as well as the expenditure of projected proceeds in 2016-17. This Plan is consistent with the second triennial investment plan for Cap and Trade auction proceeds and was informed by public comments received through 11 public meetings and workshops as part of the development of the second investment plan. The proposed plan expends at least 10 percent of the proceeds within disadvantaged communities and at least 25 percent of the proceeds to projects that benefit those communities.

Figure EPA-01

**2016-17 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	\$500
	State Transit Assistance	Low Carbon Transit Operations	\$100
	Transportation Agency	Transit and Intercity Rail Capital Program	\$200
	Strategic Growth Council	Affordable Housing and Sustainable Communities Program	\$400
50 Percent Reduction in Petroleum Use	Transportation Agency	Transit and Intercity Rail Capital Program	\$400
	Caltrans	Low Carbon Road Program	\$100
	Air Resources Board	Low Carbon Transportation & Fuels	\$500
	Energy Commission	Biofuel Facility Investments	\$25
Local Climate Action	Strategic Growth Council	Transformational Climate Communities	\$100
Short-Lived Climate Pollutants	Air Resources Board	Black Carbon Woodsmoke	\$40
		Refrigerants	\$20
	Cal Recycle	Waste Diversion	\$100
	Department of Food and Agriculture	Climate Smart Agriculture - Healthy Soils and Dairy Digesters	\$55
Safeguarding California/ Water Action Plan	Departments of Food and Agriculture & Water Resources	Water and Energy Efficiency	\$30
	Energy Commission	Drought Executive Order - Water and Energy Technology Program & Appliance Rebates	\$60
	Department of Fish and Wildlife	Wetlands and Watershed Restoration/CalEcoRestore	\$60
Safeguarding California/ Carbon Sequestration	CAL FIRE	Healthy Forests	\$150
		Urban Forestry	\$30
	Natural Resources Agency	Urban Greening	\$20
Energy Efficiency/ Renewable Energy	Department of General Services	Energy Efficiency for Public Buildings	\$30
	I Bank	California Lending for Energy and Environmental Needs Center	\$20
	Conservation Corps	Energy Corps	\$15
	Department of Community Services and Development	Energy Efficiency Upgrades/ Weatherization	\$75
	University of California/ California State University	Renewable Energy and Energy Efficiency Projects	\$60
<b>Total</b>			<b>\$3,090</b>

### **50-PERCENT REDUCTION IN PETROLEUM USE**

California's transportation sector accounts for 37 percent of GHG emissions in California, representing the highest source of statewide emissions. The primary strategies to reduce emissions from this sector include:

- Expanding public transit systems.
- Supporting transit-oriented development.
- Improving vehicle efficiency, including deployment of zero-emission vehicles and equipment.
- Reducing the carbon intensity of transportation fuels.

Consistent with existing law, the Budget reflects that 60 percent, or \$1.2 billion, of 2016-17 projected auction proceeds are continuously appropriated to support public transit, sustainable communities, and high-speed rail. To further support the Governor's goal to reduce statewide petroleum use by 50 percent by 2030, the Cap and Trade Expenditure Plan includes an additional \$1 billion for the following programs that will reduce emissions in the transportation sector:

- \$500 million for the Air Resources Board's Low Carbon Transportation Program to provide incentives for low carbon freight and passenger transportation, including rebates for zero-emission cars, vouchers for hybrid trucks and zero-emission trucks and buses.
- \$400 million for the Transportation Agency's Transit and Intercity Rail Capital Program for additional competitive grants to support capital improvements to integrate state, local and other transit systems, including those located in disadvantaged communities, and to provide connectivity to high-speed rail. This proposal is consistent with the Administration's transportation package. For additional detail, see the Transportation Chapter.
- \$100 million for the Department of Transportation to administer the Low Carbon Road Program, which will prioritize disadvantaged communities, and provide competitive grants for improvements to local streets and roads that encourage active transportation, such as walking and bicycling, transit, and other carbon-reducing road investments. This proposal is consistent with the Administration's transportation package.

- \$25 million for the Energy Commission’s Alternative and Renewable Fuel and Vehicle Technology Program to provide incentives for in-state biofuel production through the expansion of existing facilities or the construction of new facilities.

### **LOCAL CLIMATE ACTION**

Over the past several years, Cap and Trade proceeds have targeted disadvantaged communities through multiple pathways, such as the Department of Forestry and Fire Protection’s (CAL FIRE) Urban Forestry Program and the Department of Community Services and Development’s Low-Income Weatherization Program. The Budget proposes to continue to support these existing programs, as well as new, innovative approaches to support local efforts to reduce emissions. This proposal reflects comments received at the second investment plan public workshops encouraging greater local control.

Significant Adjustment:

- \$100 million for the Strategic Growth Council to administer the Transformational Climate Communities Program to support local climate actions in the state’s top 5 percent of disadvantaged communities. Funding will support projects that integrate multiple, cross-cutting approaches to reduce GHG emissions. The program will combine climate investments within a local area for catalytic impact, including investments in energy, transportation, active transportation, housing, urban greening, land use, water use efficiency, waste reduction, and other areas, while also increasing job training, economic, health and environmental benefits.

### **SHORT-LIVED CLIMATE POLLUTANTS**

Short-lived climate pollutants such as black carbon, methane, and fluorinated gases are much more potent than carbon dioxide. Cutting these pollutants can significantly help slow the rate of global warming and can improve health and air quality in local communities in California. Pursuant to Chapter 523, Statutes of 2014 (SB 605), the Air Resources Board has developed a plan that calls for a 50-percent reduction in black carbon and fluorinated gas emissions and a 40-percent reduction in methane emissions by 2030.

Reducing methane emissions from landfills will be a key component of the short-lived climate pollutant strategy. A key to achieving these goals is the successful collection and recycling of organic and other materials.

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Significant Adjustment:

- \$100 million for the Department of Resources, Recycling and Recovery to provide financial incentives for capital investments that expand waste management infrastructure, with a priority in disadvantaged communities. Investment in new or expanded clean composting, anaerobic digestion, fiber, plastic, and glass facilities is necessary to divert more materials from landfills. These programs reduce GHG emissions and support the state's 75-percent solid waste recycling goal.

### **WATER ACTION PLAN AND SAFEGUARDING CALIFORNIA**

While California continues to reduce GHG emissions, the state is already confronting the impacts of climate change. Many impacts, such as increased fires, floods, severe storms and heat waves, will only become more frequent and more dramatic. California has experienced four consecutive years of below-average rain and snow, and is currently facing severe drought conditions statewide. Water levels in the state's reservoirs are depleted, the state's snowpack has been at historically low levels, and the state's rivers have been experiencing reduced flows.

In July 2014, the Natural Resources Agency released the Safeguarding California Plan, which identified risk reduction strategies to prepare for, and adapt to, climate change, including the management of the state's water supplies. In recognition of the current and future challenges of climate change, the Water Action Plan provides a blueprint to improve water supply reliability, restoration, and resilience (See the Natural Resources Chapter). The Cap and Trade Expenditure Plan includes an additional \$150 million for the following programs that reduce GHG emissions by saving energy through water conservation, and restore ecosystems to improve carbon sequestration:

- \$60 million for the Department of Fish and Wildlife to implement wetland restoration projects that provide carbon sequestration benefits, including habitat restoration projects within the California EcoRestore program to support the long-term health of the Delta's native fish and wildlife species.
- \$30 million for the Energy Commission to begin implementation of the Water Energy Technology Program to provide funding for innovative technologies that reduce GHG emissions by (1) achieving significant energy and water savings, (2) demonstrating actual operation beyond the research and development stage, and (3) documenting readiness for rapid, large-scale deployment in California.

- \$30 million for the Energy Commission to implement a consumer rebate program for the replacement of energy-inefficient water-consuming appliances, such as dishwashers and washing machines.
- \$20 million for the California Department of Food and Agriculture's existing State Water Efficiency and Enhancement Program, which provides incentives to agricultural operations to invest in energy-efficient irrigation technologies that reduce GHG emissions and water use.
- \$10 million for the Department of Water Resources' existing Water Energy Grant Program which reduces energy demand and GHG emissions through local projects that also support water use efficiency and conservation.

### **CARBON SEQUESTRATION**

As a result of four consecutive years of drought conditions and an infestation of bark beetles, the U.S. Forest Service recently estimated that over 22 million trees in California are dead and tens of millions more are likely to die. In addition to increasing the frequency and severity of the state's wildfire risk, the number of dead and dying trees compromises the carbon sequestration capabilities of the state's forested lands.

Significant Adjustment:

- \$150 million for CAL FIRE to support forest health programs that reduce GHG emissions through fuel reduction, reforestation projects, pest and diseased tree removal, and long-term protection of forested lands vulnerable to conversion. Funds will also support biomass energy generation projects.

### **ENERGY EFFICIENCY AND RENEWABLE ENERGY**

Consistent with the requirements of SB 350, one of the key climate change strategies to reduce GHG emissions is to double the rate of energy efficiency in existing buildings. Through clean energy investments in public buildings, the state will be a leader in meeting these goals.

Significant Adjustments:

- \$30 million for the Department of General Services to implement Executive Order B-18-12 that requires state agencies to reduce GHG emissions by 10 percent by 2015 and 20 percent by 2020. The Department will assist state agencies in the construction of zero-net-energy state buildings, reduction of grid-based energy

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purchases at state-owned buildings, and the use of clean, on-site power generation, such as fuel cells, solar photovoltaic, solar thermal, and wind power generation.

- \$20 million for the California Infrastructure and Economic Development Bank (I Bank) to leverage private investments in energy efficiency and renewable energy projects in public buildings that will save money by using less energy. These innovative financing mechanisms will accelerate the utilization of clean energy projects throughout the state.

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### CLIMATE CHANGE RESEARCH INITIATIVE

Research has been a key component of California's climate change efforts for the past three decades, dating back to 1988 when the Legislature directed an assessment of the potential impacts of climate change on the state. California established the first state-sponsored climate research program in the United States and has prepared three significant climate change assessments. The results of state-sponsored research have played a major role in the adoption of state legislation and policy, including the California Global Warming Solutions Act of 2006 (AB 32) and Safeguarding California, the state's adaptation strategy.

Research should continue to be part of the state's comprehensive climate change strategy. Meeting the state's aggressive GHG emission reduction targets requires innovative and cutting-edge solutions in the transportation sector, the biggest source of state emissions.

Significant Adjustment:

- \$15 million General Fund on a one-time basis for the Energy Commission to initiate research on innovative and emerging technologies for low carbon transportation fuels. The Energy Commission will engage experts from state universities, research laboratories, other California-based research institutions, and key private sector partners. The results will inform California climate policy and allow planning to continue to be based on science.

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### DEPARTMENT OF TOXIC SUBSTANCES CONTROL

The Department of Toxic Substances Control protects California residents and the environment from the harmful effects of toxic substances through restoring contaminated

sites, enforcement, regulation, and pollution prevention. The Budget includes \$218 million and 890 positions for the Department.

Over the past four years, the Department has implemented several significant reforms through its “Fixing the Foundation” initiative, permit enhancement work plan, improved cost recovery program, and strengthened financial assurance reviews. Of the 288 “Fixing the Foundation” action items, 257, or about 89 percent, are complete. The Department is on track to complete 85 percent of the permit enhancement reforms by the end of 2015.

Implementing these reforms will help to modernize the state’s safeguards for managing hazardous waste. The Department is also focused on issues related to environmental justice and tribal rights. The Governor has recently appointed a lead for these environmental efforts, and the Department is directing resources to build partnerships in disadvantaged communities. Protecting public health in residential and other areas around the now-shuttered Exide Technologies facility is a priority for the Department with \$8.5 million dedicated to this purpose between the current and budget years.

Significant Adjustment:

- Enhanced and Streamlined Permitting—An increase of \$1.2 million Hazardous Waste Control Account and continuation of 8 limited-term positions on a permanent basis to support timely permitting actions and improve the clarity, consistency, protectiveness, and enforceability of permits issued.

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