

Cap-and-Trade Auction Proceeds Investment Plan

DRAFT CONCEPT PAPER

Release Date: February 15, 2013
Comments Due: March 8, 2013



Air Resources Board

California Environmental Protection Agency

For public comment and discussion at February 2013 workshops:
<http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/auctionproceeds.htm>

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Cap-and-Trade Auction Proceeds Investment Plan
Draft Concept Paper

PROGRAM WEBPAGE

For more information on this topic and upcoming meetings,
please see the program website for Administration activities at:
<http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/auctionproceeds.htm>

DOCUMENT AVAILABILITY

Electronic copies of this document and related materials can be found at:
<http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/auctionproceeds.htm> .
Alternatively, paper copies may be obtained from the Air Resources Board's Public
Information Office, 1001 I Street, 1st Floor, Visitors and Environmental Services Center,
Sacramento, California, 95814, (916) 322-2990.

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would like to request interpreter services, please contact Air Resources Board's
Bilingual Manager at (916) 323-7053.

WORKSHOPS

The material in this concept paper will also be discussed at public workshops on
February 19 (Fresno), February 25 (Sacramento, with webcast) and
February 27 (Los Angeles). Please see the program website for more information.

QUESTIONS

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PUBLIC INPUT

The Administration is seeking your input on the investment of cap-and-trade auction proceeds to support the State's effort to reduce the greenhouse gases that contribute to climate change.

The public can provide feedback on these concepts during workshops in February 2013 and comment on a draft investment plan at a public hearing in Spring 2013. Meeting information is available on the program webpage at:
<http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/auctionproceeds.htm>

Please electronically submit any written comments on the material discussed at the workshops and this concept paper by March 8, 2013 through the "submit comments" link on the program webpage or directly to:

http://www.arb.ca.gov/lispub/comm2/bcsubform.php?listname=2013investmentplan_ws&comm_period=1

The February 2013 workshops are a continuation of the Administration's earlier efforts to obtain public input on this issue. On May 24, 2012, an initial public consultation meeting was held to solicit input from stakeholders and experts on the use of cap-and-trade auction proceeds. Comments submitted in response can be viewed at:
http://www.arb.ca.gov/lispub/comm2/bccommlog.php?listname=investmentplan_ws

LIST SERVE FOR DISTRIBUTION OF NOTICES

To receive notices of upcoming meetings or availability of documents, please subscribe to the new list serve through the link displayed below the "staying in touch" section of the program webpage.

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I. Introduction

The purpose of this concept paper is to aid public discussion regarding development of the first Administration investment plan for cap-and-trade auction proceeds. This concept paper discusses the applicable requirements and preliminary priorities for investing the auction proceeds in programs and projects that help achieve greenhouse gas reduction goals.

The investment of the cap-and-trade auction proceeds provides both the opportunity and the responsibility to spend them well to further the objectives of AB 32, the California Global Warming Solutions Act of 2006 (Assembly Bill 32 (AB 32); Stats. 2006 chapter 488). These include reducing the greenhouse gases that contribute to climate change, as well as cutting other forms of air pollution, especially in disadvantaged communities. Strategic investments can advance the State's climate, air quality, energy, transportation, and natural resources goals for the 2020 timeframe and beyond. Targeted expenditures can help California realize the transformational changes in transportation and energy that will be critical to meet our longer-range goals as well. Funding existing programs in the early years can quickly get the money into California's economy and support job growth.

In 2012, the Legislature passed and Governor Brown signed into law three bills—AB 1532 (Pérez, Chapter 807), SB 535 (De León, Chapter 830), and SB 1018 (Budget and Fiscal Review Committee, Chapter 39)—that establish the Greenhouse Gas Reduction Fund (Fund) to receive auction proceeds and to provide the framework for how the auction proceeds will be administered. The State portion of the proceeds from the auction of allowances under the cap-and-trade program will be deposited in the Fund to support programs that further the purposes of AB 32.

This legislation states that the Department of Finance (Finance) must submit a plan to the Legislature which identifies priority investments that will help achieve greenhouse gas reduction goals. Funding will be appropriated to State agencies by the Legislature and Governor through the annual Budget Act, consistent with the three-year investment plan. While developing the investment plan, Finance is coordinating with the Air Resources Board (ARB), the California Environmental Protection Agency (Cal/EPA), the Climate Action Team (CAT), and other State agencies. Figure 1 contains a schedule for preparing the first three-year investment plan.

Figure 1
Schedule for First Investment Plan



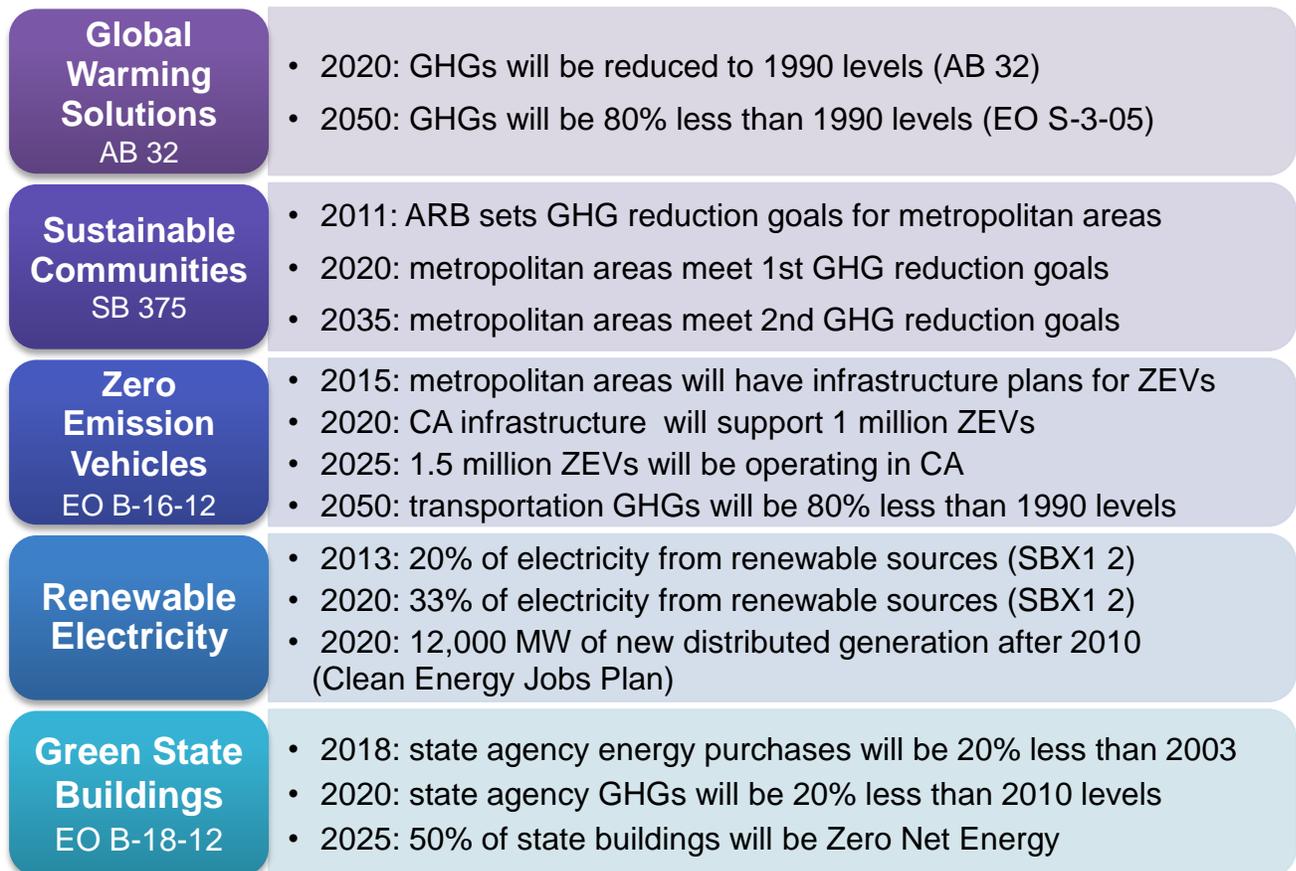
II. Background

Goals and Direction

In 2006, the Legislature passed the California Global Warming Solutions Act of 2006 (Assembly Bill 32 (AB 32); Stats. 2006 chapter 488). AB 32 created a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. AB 32 required California to reduce greenhouse gases to 1990 levels by 2020, and to maintain and continue reductions beyond 2020. ARB has adopted a Scoping Plan and, together with other State and local agencies, has developed and implemented numerous regulations and programs to reduce emissions to meet these goals.

In March 2012, Governor Brown signed Executive Order B-16-2012 establishing zero emission vehicle benchmarks and affirming a long-range climate goal for California to reduce greenhouse gases from transportation to 80 percent below 1990 levels by 2050. Figure 2 shows several key milestones and quantitative targets for California's climate change and energy programs.

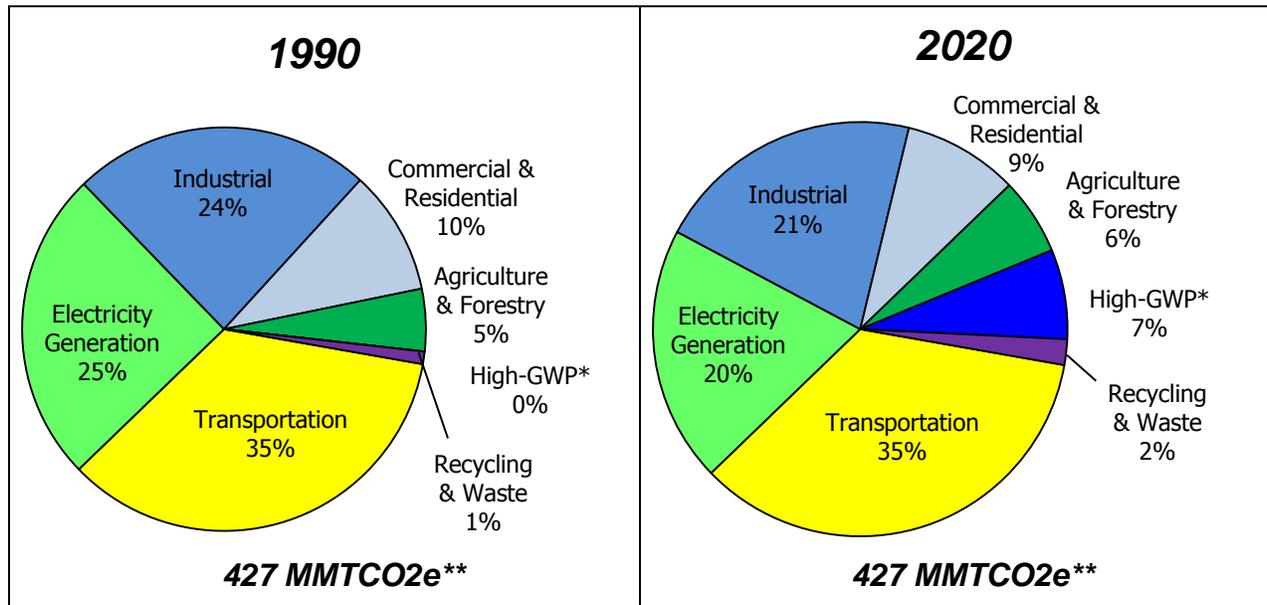
Figure 2
Major Goals & Targets for Greenhouse Gas Reductions



California GHG Emissions

The charts in Figure 3 show the relative proportion of GHG emissions from major sectors, including how they are projected to change over time to reach the 2020 limit.

Figure 3
Statewide GHGs by Sector - 1990 Inventory and 2020 Forecast

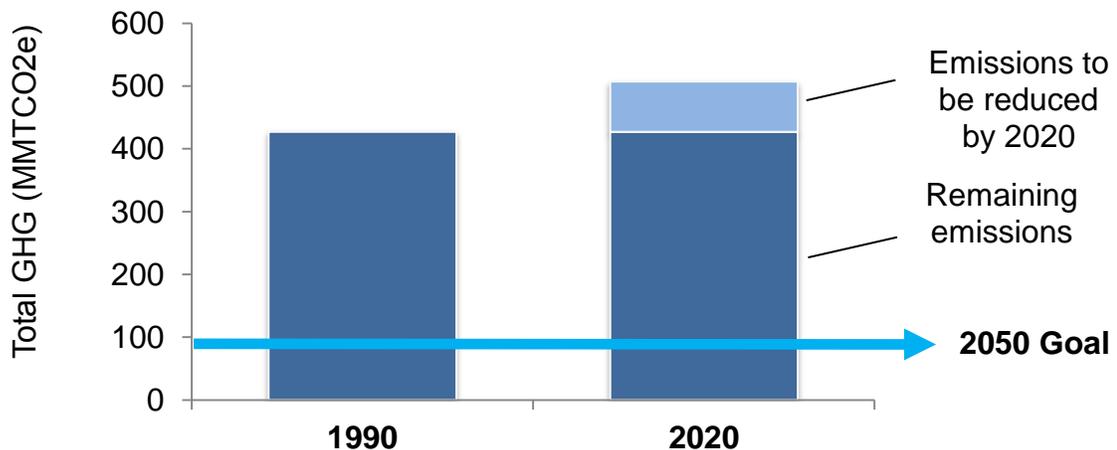


* High-GWP means high "global warming potential."

** MMTCO₂e means "Million Metric Tons of Carbon Dioxide (CO₂)-equivalent" emissions

Figure 4 shows the 1990 and 2020 "business-as-usual" GHG inventories, along with the GHG reduction goals for 2020 and 2050. Significant investments will be needed to support the transformative technologies that are essential to reach the 2050 goal.

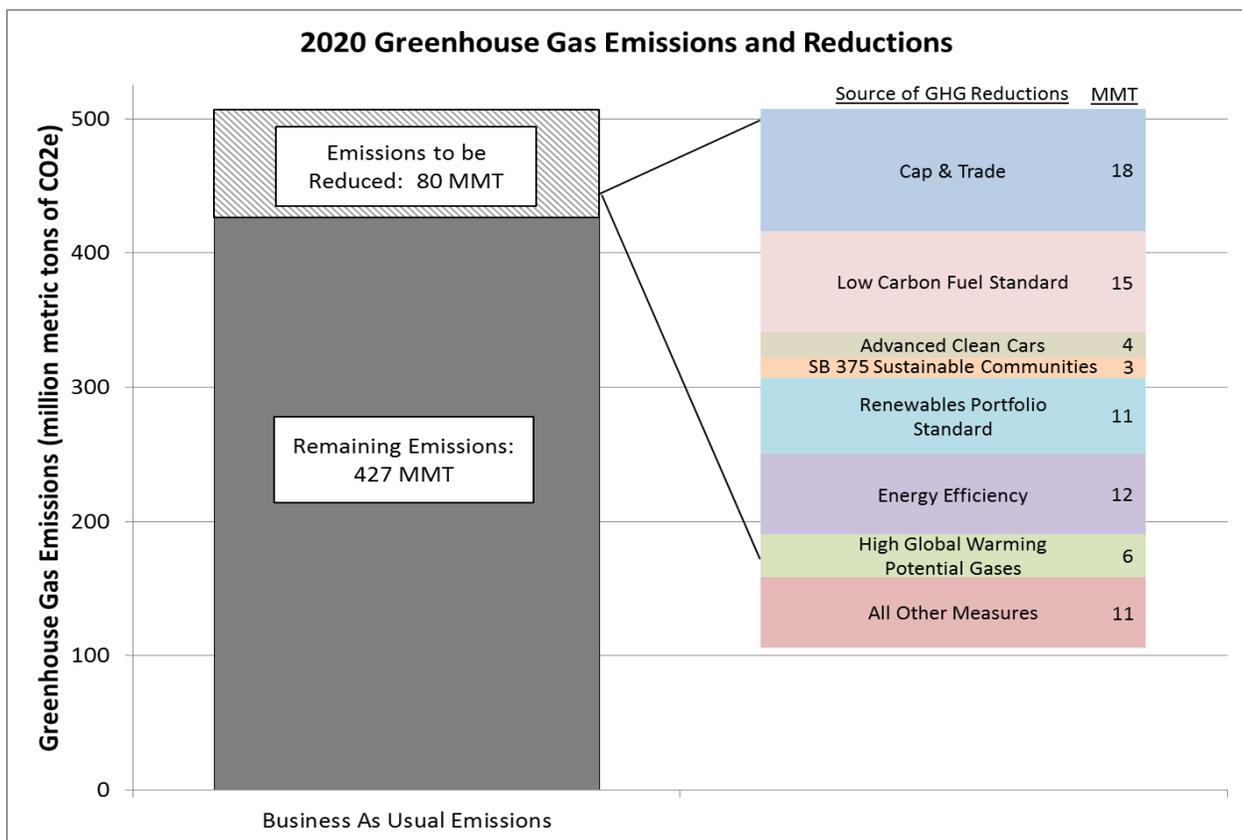
Figure 4
California GHG Inventory and Long-Term Reduction Goals



GHG Emission Reduction Strategies

One of the requirements of AB 32 is that ARB must prepare and periodically update a Scoping Plan. The 2008 Scoping Plan contains a comprehensive array of strategies, including the cap-and-trade program that is the source of the auction proceeds subject to the investment plan. These strategies are focused on the key sectors that account for a significant portion of the statewide GHG emissions inventory. Figure 5 shows the primary regulations and programs that are expected to deliver the GHG reductions needed to meet the 2020 mandate established by AB 32.

Figure 5



As shown above, the cap-and-trade program is a key element of the Scoping Plan. It creates a limit on the emissions from sources responsible for 85 percent of California's GHG emissions, establishes the price signal needed to drive long-term investment in cleaner fuels and more efficient use of energy, and gives covered entities flexibility to implement the lowest-cost options to reduce emissions. The program also complements and supports California's existing efforts to reduce criteria and toxic air pollutants.

In the cap-and-trade program, ARB places a limit, or cap, on GHG emissions by issuing a limited number of tradable permits (called *allowances*) equal to the cap. Over time, the cap will steadily decline. The cap is enforced by requiring each source that operates under the cap to turn in one allowance or offset credit for every metric ton of carbon dioxide equivalent (MTCO₂e) that it emits.

The cap-and-trade program does not set specific emission limits on individual emitters. By establishing a limit for the program overall rather than for individual sources, the cap-and-trade program gives sources flexibility to make the most cost-effective choices about when and how to reduce emissions. The price of allowances will be established by the marketplace based on supply and demand.

At the beginning of the cap-and-trade program, most allowances will be distributed for free. For most other allowances, the program includes an auction system where allowances can be purchased from the State. Over time, the program will transition toward a greater reliance on auctioning, which will help maximize incentives for continued investment in clean and efficient technologies and provide revenue that can be reinvested for public benefit to further the purposes of AB 32.

The first cap-and-trade auction was held on November 14, 2012, the second will be held on February 19, 2013, and subsequent auctions will be conducted quarterly.

III. Legislative Direction

Together AB 1532 and SB 535 form the implementing statute where the Legislature provided direction on the process for allocating auction proceeds, the eligible uses for those proceeds, and the minimum level of investments in disadvantaged communities.

Process

The statute establishes a two-step process for allocating funding to State agencies, with Department of Finance (Finance) as the lead agency.

1. *Three-Year Investment Plan*: Finance, in consultation with ARB and other State agencies, must develop and submit to the Legislature a three-year investment plan identifying priority programmatic investments of auction proceeds. The first such plan is due to the Legislature with the Revised FY 2013-14 State Budget in May 2013. Subsequently, investment plans must be updated every three years and submitted prior to the release of the Governor's January budget proposal.

The investment plan must identify near-term and long-term greenhouse gas emission reduction goals and targets; analyze gaps in current state strategies for meeting greenhouse gas reduction goals; and identify priority investments that facilitate greenhouse gas reductions.

2. *Annual Budget Appropriations:* Funding will be appropriated to State agencies by the Legislature and Governor through the annual Budget Act, consistent with the three-year investment plan.

Prior to Finance's submittal of an investment plan to the Legislature, ARB must hold at least two public workshops and a public hearing in coordination with Finance and the Climate Action Team. ARB must also consult with the California Public Utilities Commission (CPUC) to ensure the plan does not conflict with or unduly overlap activities that are under the oversight or administration of the CPUC.

Investment Categories and Goals

The implementing statute specifies the general categories that are authorized to receive budget appropriations from the Fund, as summarized below in Figure 6. Per statute, cap-and-trade auction proceeds must be used to further the purposes of AB 32.

In addition, the statute establishes the following goals for the use of the proceeds:

- Maximize economic, environmental, and public health benefits to the state.
- Foster job creation by promoting in-state GHG emissions reduction projects carried out by California workers and businesses.
- Complement efforts to improve air quality.
- Direct investment toward the most disadvantaged communities and households in the state.
- Provide opportunities for businesses, public agencies, nonprofits, and other community institutions to participate in and benefit from statewide efforts to reduce greenhouse gas emissions.
- Lessen the impacts and effects of climate change on the state's communities, economy, and environment.

Disadvantaged Communities

The statute also requires that at least 25 percent of program funding expended be directed to projects that benefit disadvantaged communities and at least ten percent of program funding expended be directed to projects located in disadvantaged communities.

Cal/EPA is responsible for identifying disadvantaged communities prior to submittal of the investment plan to the legislature. Identification criteria may include, but are not limited to:

- Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation.

- Areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment.

Figure 6
Eligible Investments

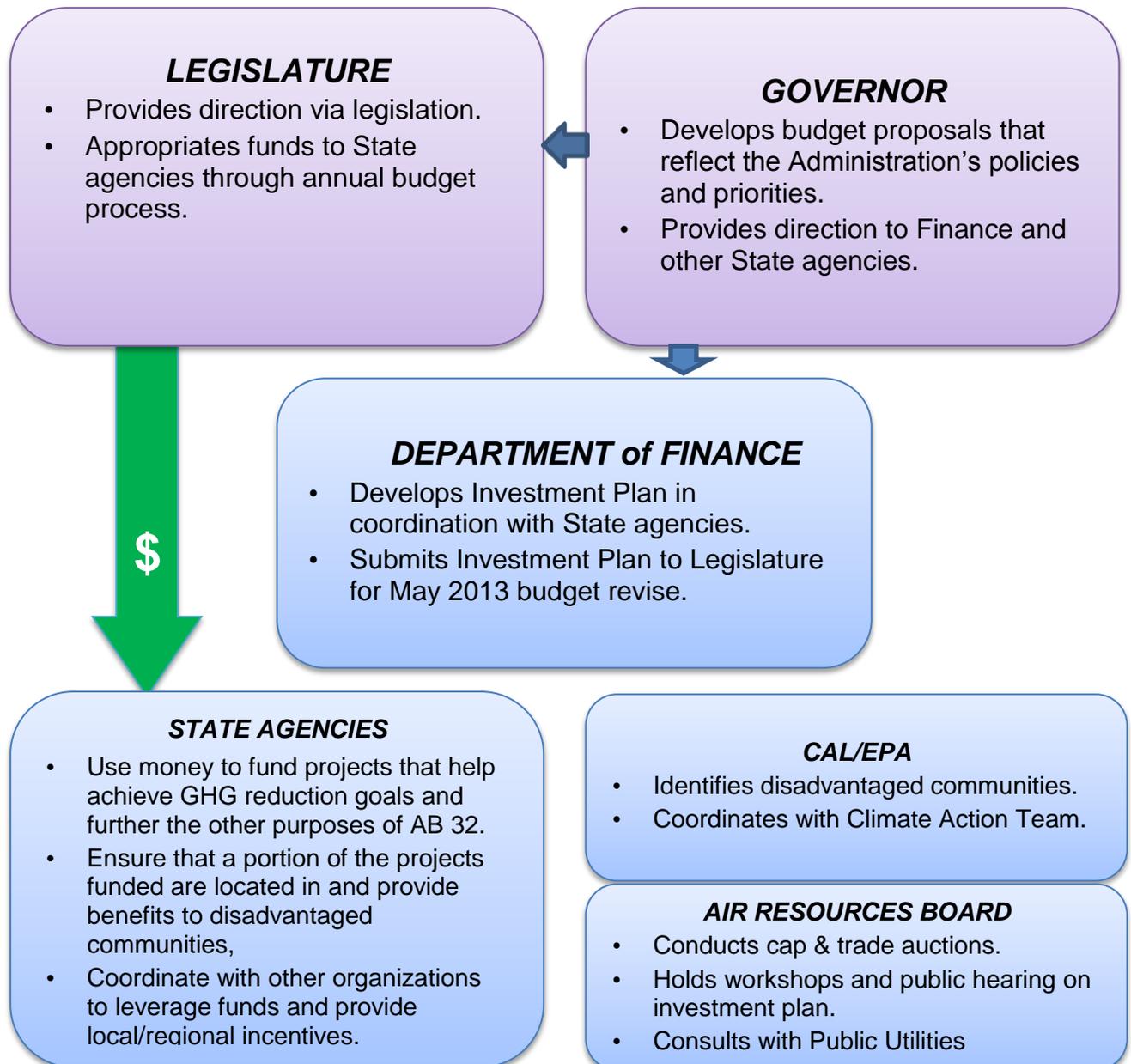
Eligible investments include, but are not limited to, those that do the following:

<p>Low-Carbon Transportation and Infrastructure</p>	<ul style="list-style-type: none"> • Reduce GHG emissions through the development of state-of-the-art systems to move goods and freight, advanced technology vehicles and vehicle infrastructure, advanced biofuels, and low-carbon and efficient public transportation.
<p>Strategic Planning for Sustainable Infrastructure</p>	<ul style="list-style-type: none"> • Reduce GHG emissions through strategic planning and development of sustainable infrastructure projects, including, but not limited to, transportation and housing.
<p>Energy Efficiency and Clean Energy</p>	<ul style="list-style-type: none"> • Reduce GHG emissions through energy efficiency, clean and renewable energy generation, distributed renewable energy generation, transmission and storage, and other related actions, including, but not limited to, at public universities, state and local public buildings, and industrial and manufacturing facilities.
<p>Natural Resources and Solid Waste Diversion</p>	<ul style="list-style-type: none"> • Reduce GHG emissions associated with water use and supply, land and natural resource conservation and management, forestry, and sustainable agriculture. • Reduce greenhouse gas emissions through increased in-state diversion of municipal solid waste from disposal through waste reduction, diversion, and reuse.
<p><i>For all of the above categories -</i></p>	<ul style="list-style-type: none"> • Programs implemented by State, local and regional agencies, local and regional collaboratives, and nonprofit organizations coordinating with local governments; and • Research, development, and deployment of innovative technologies, measures, and practices related to programs and projects funded by cap and trade auction proceeds.

State Government Roles and Responsibilities

The figure below illustrates the roles and responsibilities of the various entities that are involved in developing the investment plan, as well as allocation and implementation of the auction proceeds.

**Figure 7:
Roles and Responsibilities**



IV. Governor's Budget Proposal

On January 10, 2013, the Governor released a proposed budget for Fiscal Year 2013-14, which described his priorities for the investment of auction proceeds. Provided below is a brief description of the priorities and potential projects.

Transportation

"Transportation is the single largest contributor to GHGs in California (38 percent), and reducing transportation emissions should be a top priority..."

Examples of potential projects:

- Mass transit
- High speed rail
- Electrification of heavy-duty and light-duty vehicles
- Sustainable communities
- Electrification and energy projects that complement high speed rail

Electricity & Commercial/Residential Energy

"Electricity and commercial/residential energy is the second largest contributor of GHG emissions (30 percent) and the water sector is one of the largest users of electricity..."

Examples of potential projects:

- Home energy efficiency projects with financing incentives (Property Assessed Clean Energy - PACE program)
- Reduce energy used for water supply, conveyance, treatment

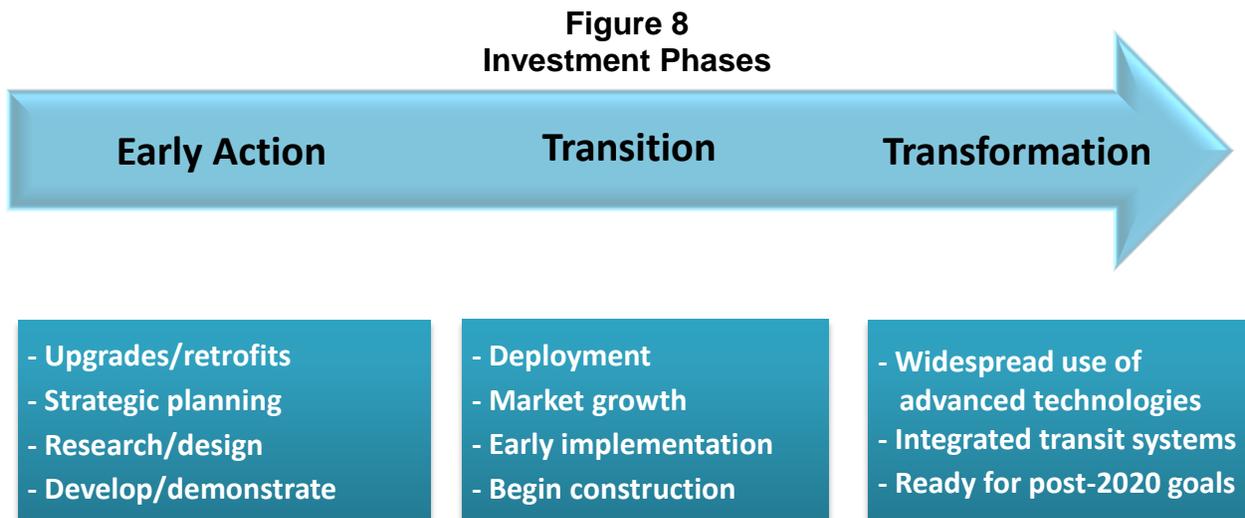
The Governor's proposal also noted other areas that should be examined during the planning process: sustainable agriculture practices (including the development of bioenergy), forest management and urban forestry, and the diversion of organic waste to bioenergy and composting.

When developing the investment plan, Finance will coordinate with other State agencies to consider all of the areas addressed in the Governor's proposal as well as others that are potentially eligible under the implementing legislation described above.

V. Preliminary Concepts

Investments

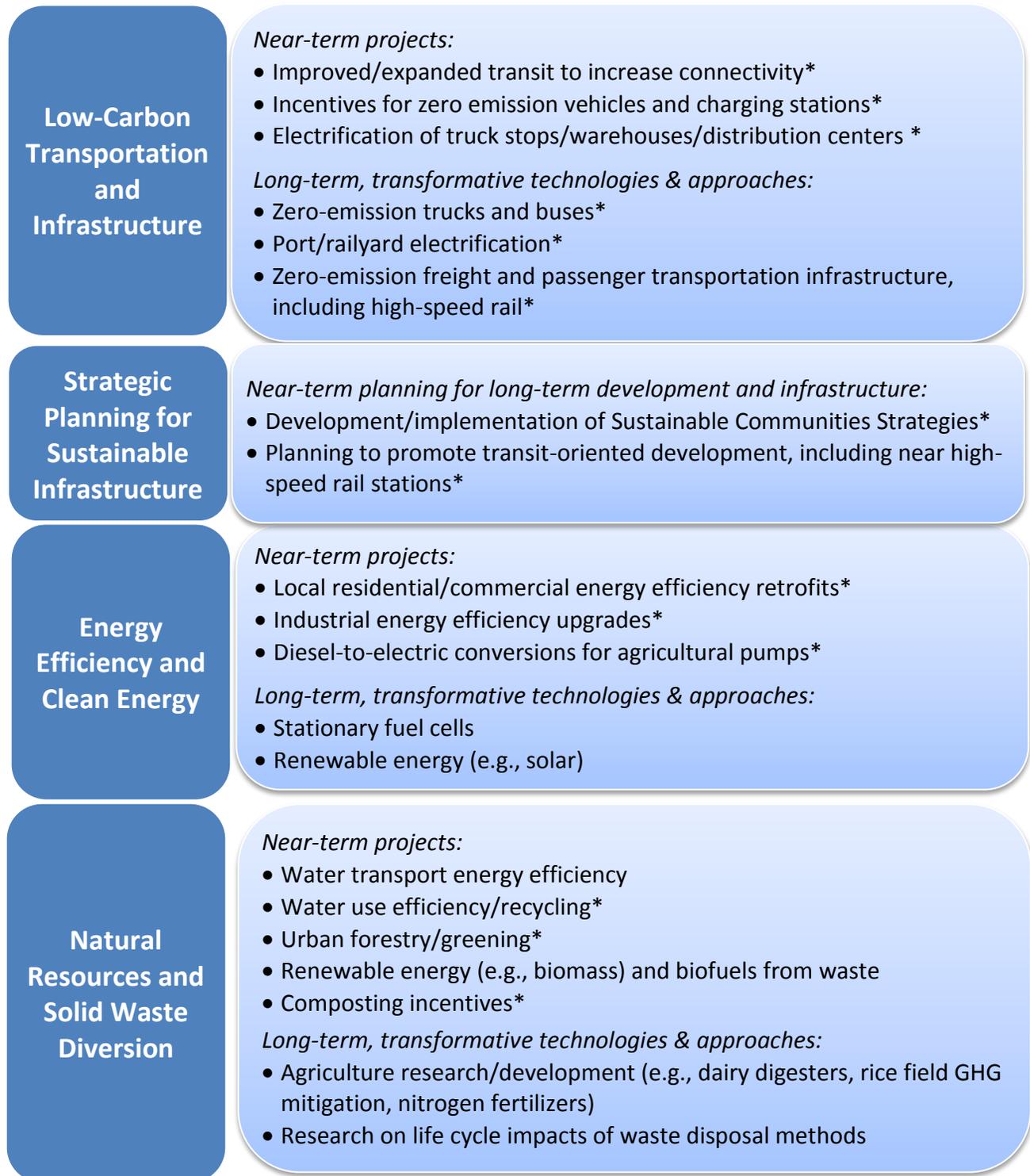
Although the legislation requires the development of a three-year investment plan (FY 2013-16), it may be useful to consider investments throughout the life of the program in a few phases, as illustrated below in Figure 8. For the early actions, investments could primarily focus on existing programs that can be quickly expanded to support additional GHG reduction projects, as well as long-range planning to guide infrastructure development for sustainable communities. During the transitional period, investments could target deployment of advanced technologies and market growth for low-carbon equipment. In the long-term, investments could help implement the transformational changes that will be needed to attain widespread use of advanced technologies and reach our long-term GHG reduction goals.



One of the planning challenges is drafting an investment plan when the amount of auction proceeds to the State each year is unknown. Therefore, the investment plan will need to have a flexible structure that accommodates this uncertainty. This may be accomplished by several means including, but not limited to: prioritizing program areas for sequential investment as proceeds become available and/or identifying project types that are infinitely scalable versus those that require a minimum threshold of funding.

The statute describes a range of project types that could potentially be funded. Figure 8 provides examples of projects under each major investment category, suitable for near-term or longer-term implementation. This list is intended to be illustrative; it does not ensure funding for listed project types or limit consideration of any other eligible project.

**Figure 9:
Examples of Potential Projects for Investment through 2020**



**These items are examples of projects that could potentially benefit disadvantaged communities.*

Identification of Disadvantaged Communities

As noted earlier, SB 535 directs the Secretary for Environmental Protection at Cal/EPA to identify disadvantaged communities. To meet the direction in SB 535, Cal/EPA has identified disadvantaged communities for investment based on a new tool called CalEnviroScreen. The Office of Environmental Health Hazard Assessment developed this tool under Cal/EPA's guidance to identify areas that are disproportionately affected by pollution and areas with socioeconomically disadvantaged populations.

Methodology. CalEnviroScreen includes 19 indicators divided into two broad categories: "burden of pollution," which includes exposures as well as environmental effects, and "population characteristics," which includes sensitive populations and socioeconomic factors.

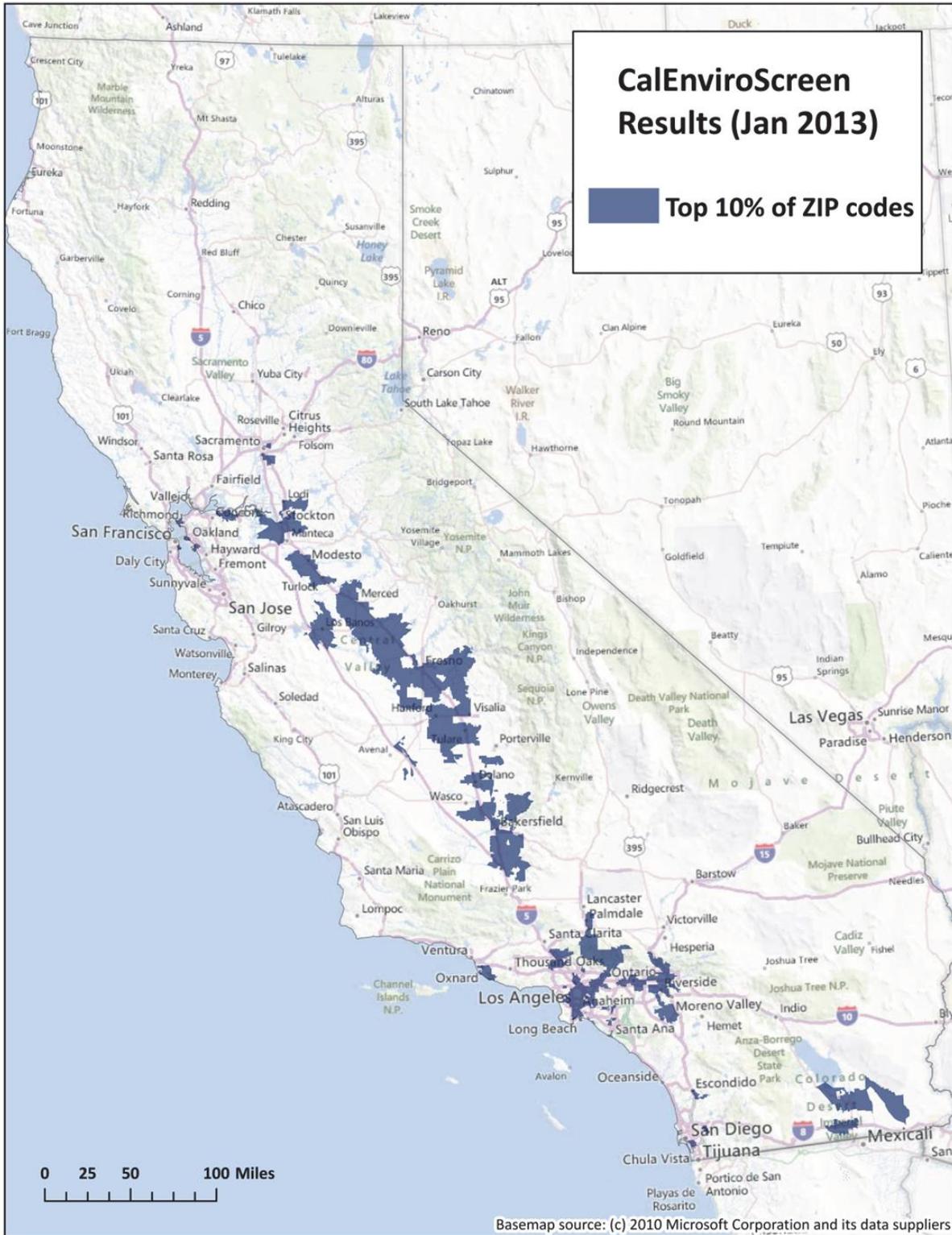
Each ZIP code in the State was assigned a value for each indicator relative to all other ZIP codes. The indicator scores were totaled to determine an overall CalEnviroScreen Score. The higher the score, the greater the impact.

Information on CalEnviroScreen can be found at: <http://oehha.ca.gov/ej/index.html>

Results. Cal/EPA then identified the top ten percent of the ZIP codes as "disadvantaged communities" for the purpose of investing auction proceeds. Those communities are shown in Figure 9 below. The population living in these ZIP codes is about 8 million, or about 21 percent of the 37 million people living in California. Appendix A provides greater visual resolution with regional maps of disadvantaged communities.

Please note that CalEnviroScreen is a draft screening tool that informs the identification of disadvantaged communities. As the tool evolves and community statistics change over time, Cal/EPA will periodically review and potentially update the maps of disadvantaged communities.

Figure 10
CALENVIROSCREEN PUBLIC REVIEW DRAFT (JAN 3, 2013)
Top 10% Highest Scoring Census ZIP Codes - Statewide



Draft Guidance for Implementing Agencies

An important element of the investment plan will be the guidance to agencies that will be responsible for the allocation or expenditure of the State portion of cap-and-trade auction proceeds. We are providing some preliminary ideas to start the discussion with principles for investment and implementation.

Agencies that receive Fund appropriations will be considered “implementing agencies” that will be responsible for developing policies and procedures to ensure fiscal and program accountability. With oversight by Finance and the Legislature, implementing agencies will ensure that the cap-and-trade auction proceeds are expended in a responsible and legal manner that yields environmental and economic benefits in California, consistent with purposes of AB 32.

Draft Investment Principles

1. Investments must further the purposes of AB 32. All investment proposals must show how a proposed project will further the regulatory purposes of AB 32, to be eligible to receive potential funding.
2. Investments should focus on two broad project types with demonstrable GHG reductions:
 - Projects that achieve near-term GHG emission reductions.
 - Projects that support development of the transformative technologies/approaches needed to achieve the State’s long-term GHG reduction goals.
3. Investments should be prioritized toward sectors with both the highest GHG emissions and the greatest need for future reductions to meet GHG goals.
4. State agencies should seek to maximize investments in and benefits to disadvantaged communities wherever possible.
5. Investments should foster job creation and maximize economic benefits for California wherever possible.
6. Investments should be coordinated with other local, State, and federal funding programs and avoid duplicative efforts. The State should coordinate its clean energy, transportation, and climate change investments to maximize their impacts.
7. Funding should leverage private and other government investment to the maximum extent possible.

Draft Implementation Principles

There are a variety of potential funding mechanisms; for example, funding could be implemented through award agreements (e.g., grant agreements, contracts, or other applicable agreements) or be directly appropriated for capital projects. Regardless of the mechanism, the implementing agency will need to provide for accountability and transparency in the implementation process.

1. State agencies should maximize transparency in program implementation.
 - Ensure information on funding opportunities is easily accessible to potential applicants, including those in disadvantaged communities.
 - Ensure that any funding solicitations, requests for proposals, notices of funding availability, etc. provide clear description of project requirements, timelines, deliverables, and the criteria that the State agency will use to evaluate proposals.
 - Ensure that information about the projects being funded is readily accessible to the public.
 - Ensure information on program outcomes, including greenhouse gas emission reduction benefits, is reported to the Department of Finance in a timely manner and is easily accessible to the public.
2. State agencies should maximize accountability in program implementation.
 - Establish or confirm that policies and procedures are in place before expending funds to ensure efficient and timely implementation in accordance with statutory requirements. These should include procedures for monitoring and evaluating projects in progress.
 - If any agency utilizes funding award agreements, include the necessary components for accountability (e.g., measurable objectives, recordkeeping provisions, State access to documents for program reviews and audits, and consequences for non-performance).
3. State agencies should provide support to disadvantaged communities to help ensure the statutory investment requirements for disadvantaged communities are met.
4. State agency funding proposals to the Department of Finance should specify the agency's costs for administering projects as well as the administrative/overhead costs for funding recipients in order to provide the full accounting of administrative costs.

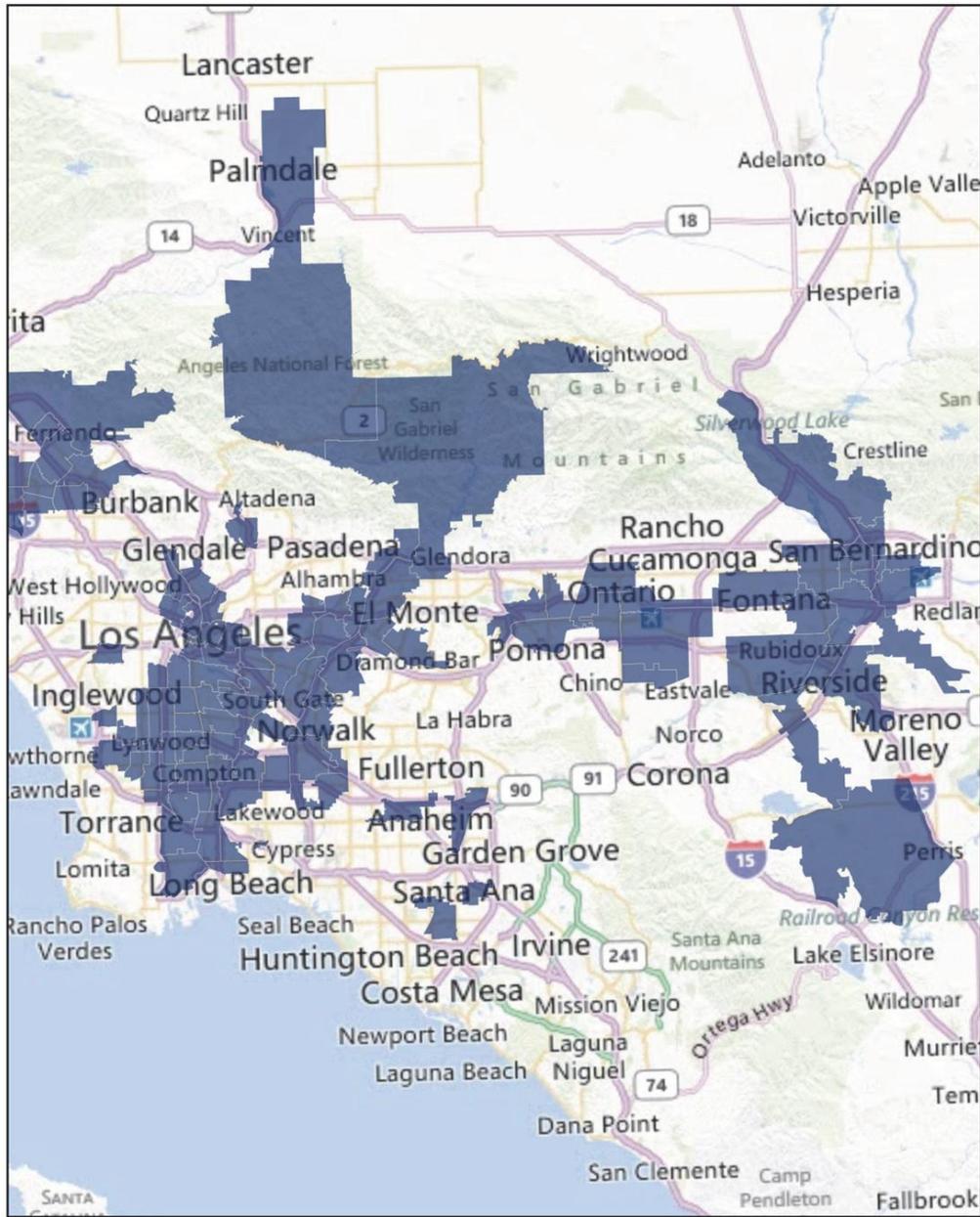
Appendix A

**Regional Maps Showing
Disadvantaged Communities for Purposes of Investment**

Figure A-1
CALENVIROSCREEN PUBLIC REVIEW DRAFT (JAN 3, 2013)
Top 10% Highest Scoring Census ZIP Codes – Los Angeles Area

CalEnviroScreen
Results (Jan 2013)

 Top 10% of ZIP codes



Los Angeles Area

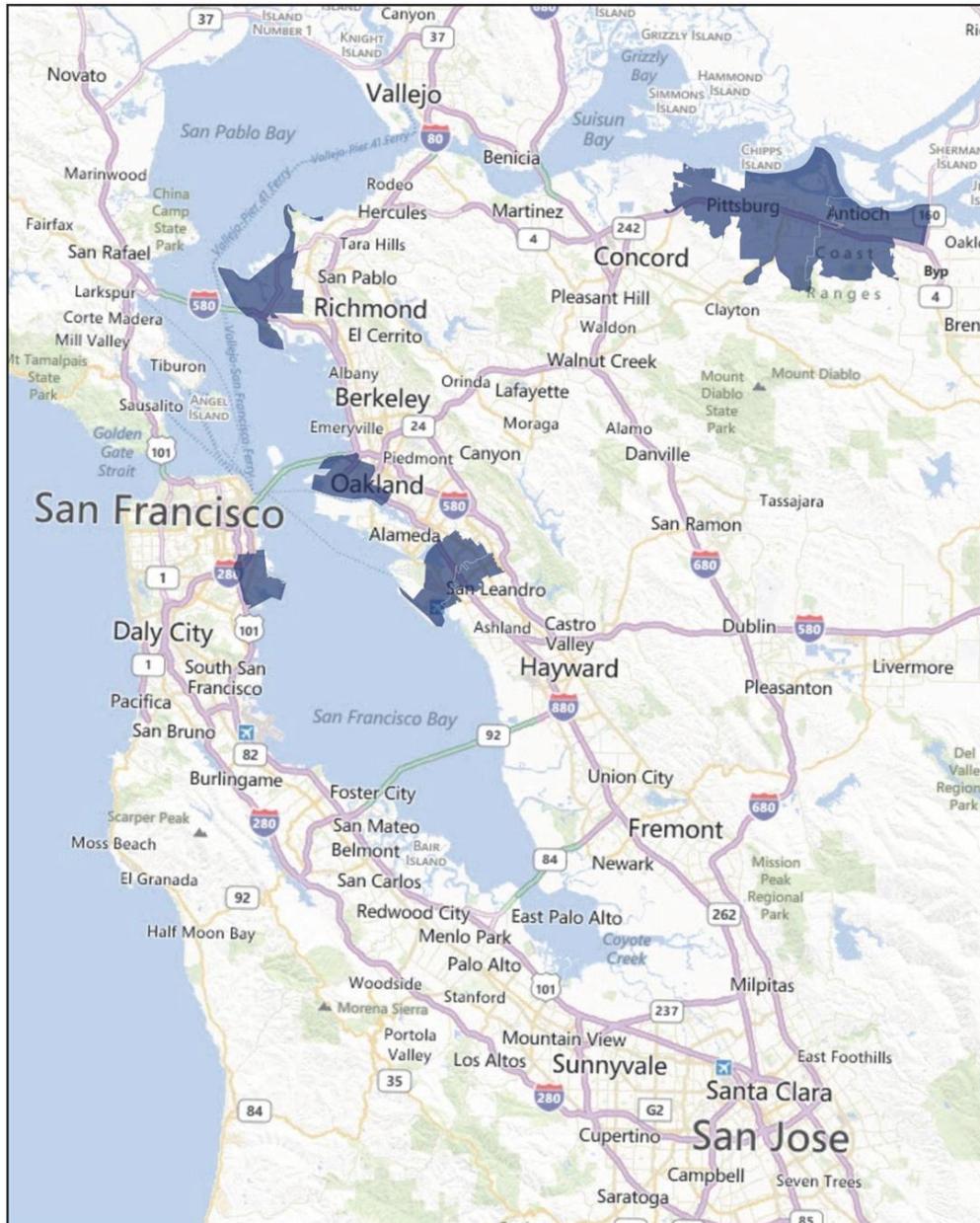
0 5 10 20 Miles

Basemap source: (c) 2010 Microsoft Corporation and its data suppliers

Figure A-2
CALENVIROSCREEN PUBLIC REVIEW DRAFT (JAN 3, 2013)
Top 10% Highest Scoring Census ZIP Codes – San Francisco Area

CalEnviroScreen
Results (Jan 2013)

 **Top 10% of ZIP codes**



San Francisco Area

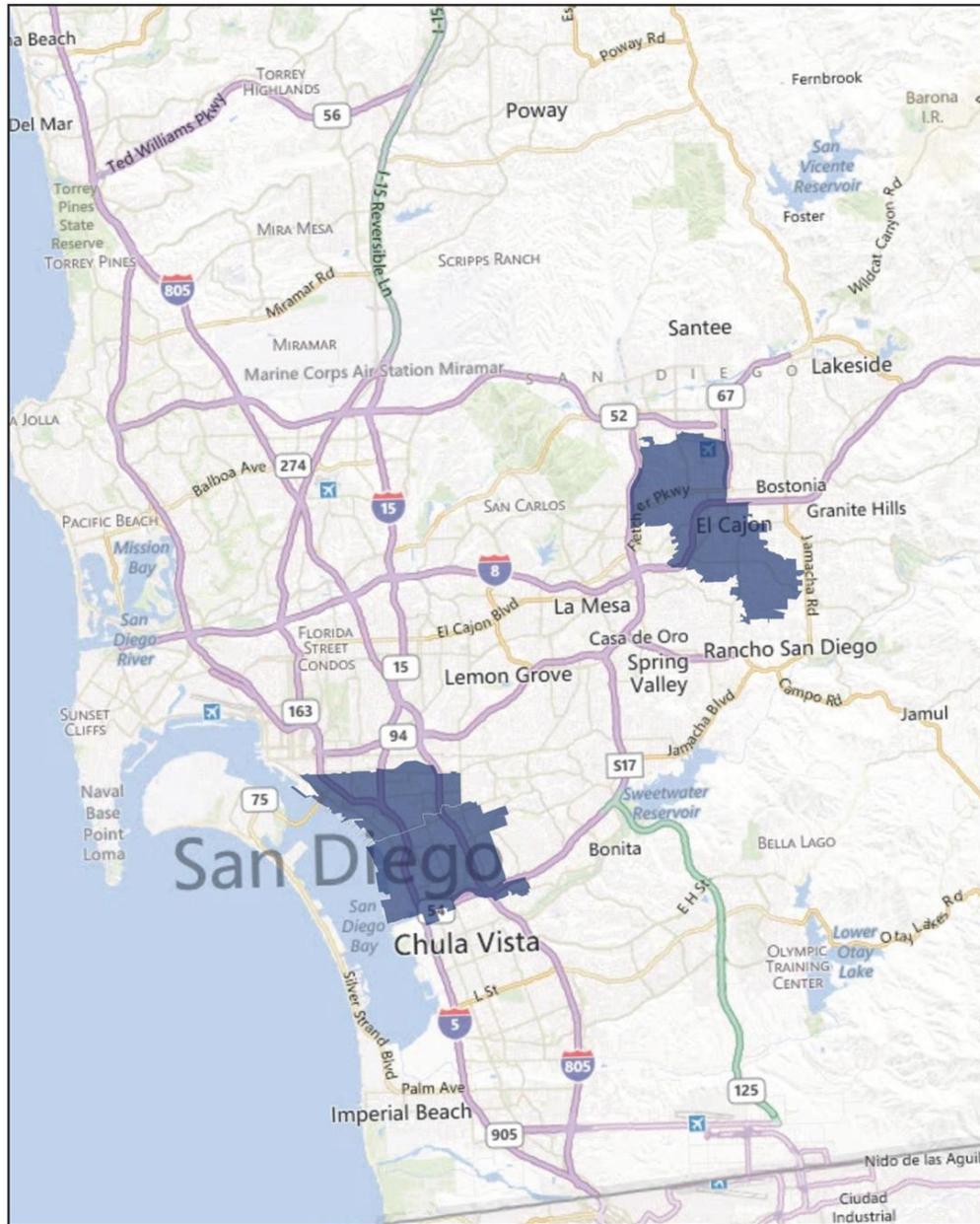
0 2.5 5 10 Miles

Basemap source: (c) 2010 Microsoft Corporation and its data suppliers

Figure A-3
CALENVIROSCREEN PUBLIC REVIEW DRAFT (JAN 3, 2013)
Top 10% Highest Scoring Census ZIP Codes – San Diego Area

CalEnviroScreen
Results (Jan 2013)

 **Top 10% of ZIP codes**



San Diego Area

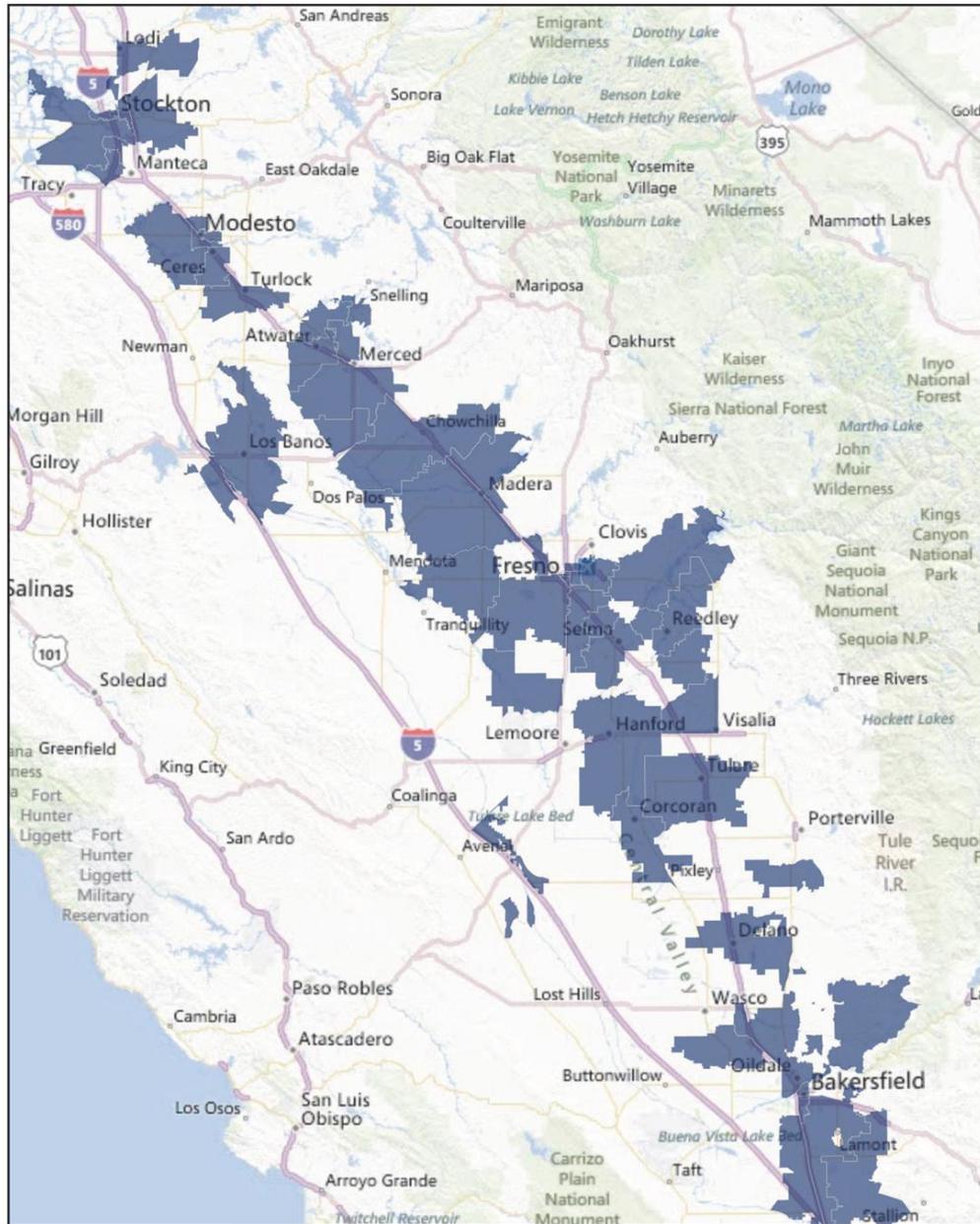


Basemap source: (c) 2010 Microsoft Corporation and its data suppliers

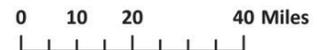
Figure A-4
CALENVIROSCREEN PUBLIC REVIEW DRAFT (JAN 3, 2013)
Top 10% Highest Scoring Census ZIP Codes – San Joaquin Area

CalEnviroScreen
Results (Jan 2013)

 **Top 10% of ZIP codes**



San Joaquin Valley

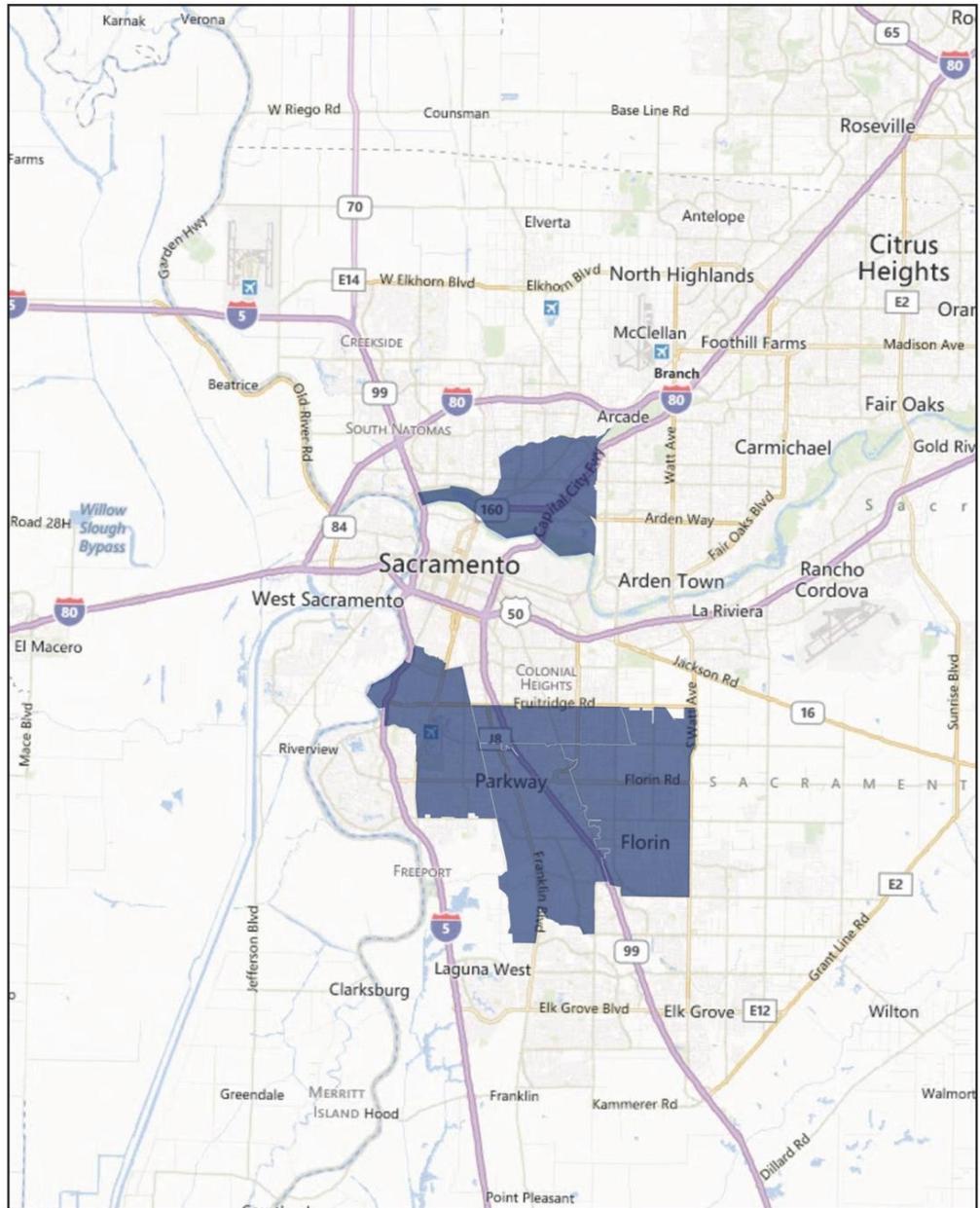


Basemap source: (c) 2010 Microsoft Corporation and its data suppliers

Figure A-5
CALENVIROSCREEN PUBLIC REVIEW DRAFT (JAN 3, 2013)
Top 10% Highest Scoring Census ZIP Codes – Sacramento Area

CalEnviroScreen
Results (Jan 2013)

 **Top 10% of ZIP codes**



Sacramento Area



Basemap source: (c) 2010 Microsoft Corporation and its data suppliers