Annual Report to the Joint Legislative Budget Committee on Assembly Bill 32

(Chapter 488, Statutes of 2006)

The California Global Warming Solutions Act of 2006

January 2014

Fulfills the Requirements of:
Supplemental Report of the 2012 Budget Act (Item 3900-001-0001 Air Resources Board)
Senate Bill 1018 (Statutes of 2012)

California Environmental Protection Agency
Air Resources Board

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INTRODUCTION

Assembly Bill 32 (AB 32), The California Global Warming Solutions Act of 2006 designates the Air Resources Board (ARB or Board) as the state agency charged with monitoring and regulating sources of greenhouse gas (GHG) emissions. AB 32 set a goal for California to reduce GHG emissions to 1990 levels by 2020, and to maintain and continue reductions beyond 2020. The law tasked ARB with quantifying this goal, implementing a mandatory emissions reporting system, and adopting a Scoping Plan that describes the measures and other actions planned to achieve the target.

AB 32 also highlights the need to continue greenhouse gas reductions beyond 2020. 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 GHG emissions to 80 percent below 1990 levels by 2050.

Legislative Direction. The Supplemental Report of the 2012 Budget Act Item 3900-001-0001 requires ARB to provide the Joint Legislative Budget Committee (JLBC) with multiple reports on its activities and resources to implement AB 32. These requirements include:

(1) Semi-annual AB 32 update on key climate programs, including recent developments and upcoming milestones;
(2) Annual AB 32 fiscal report for the prior fiscal year summarizing fees and proceeds coming in, and expenditures going out; and
(3) Annual AB 32 resource reports – one prospective and one retrospective – showing staffing and operations, plus contract expenses, by major program area.

Senate Bill 1018 (Budget and Fiscal Review), Chapter 39, Statutes of 2012, also requires ARB and the Secretary for Environmental Protection to submit reports to the JLBC on the Western Climate Initiative, Incorporated (WCI, Inc.):

(4) Semi-annual report on any actions proposed by WCI, Inc. that affect California State government or entities located within the State, as well as advance notification of any planned ARB payments to WCI, Inc. over $150,000.

Annual Report Content. This document provides the required annual updates on the four items listed above. It covers ARB's implementation of AB 32 and does not include the activities and resources of other State agencies to implement AB 32. The State Agency Greenhouse Gas Reduction Report Card published by the California Environmental Protection Agency (CalEPA) details the activities of each agency and department to reduce GHG emissions. For more information on the Report Card, please see: http://www.climatechange.ca.gov/climate_action_team/reports/.

SECTION 1:

SEMI-ANNUAL AB 32 PROGRAM UPDATE

(July 2013-June 2014)

This report is required semi-annually by the Supplemental Report of the 2012-13 Budget[1] to highlight significant developments in the last six months and identify upcoming milestones in the next six months in ARB's implementation of AB 32. This semi-annual report, together with the previously submitted mid-year semi-annual report[2], provides a comprehensive update on AB 32 program activities for 2013. The upcoming milestones in this semi-annual report focus on the first half of 2014. The report format follows the Budget directive, beginning with major regulatory measures, followed by supporting programs, then a discussion of the GHG emission reductions, and concluding with the current funding in the Greenhouse Gas Reduction Fund.

While this program update focuses on the high profile regulations and supporting programs identified in the Supplemental Budget Report, they represent a subset of ARB's activities and resources to address climate change. Additional activities include research, air monitoring, and preparing the emissions inventory (including the Mandatory Reporting Regulation), as well as the development, implementation, and enforcement of over 20 regulations that reduce GHGs as a primary objective or as a co-benefit. These other regulations affect a wide range of activities and facilities, including: passenger vehicles (including their tires and air conditioners); heavy trucks and the trailers they pull; ships at berth; and sources of high global warming potential (GWP) gases like semi-conductor manufacturing, appliance recycling, and consumer products.

[1] "The California Air Resources Board (CARB) shall submit to the Legislature an AB 32 program update every six months summarizing key program activities. Each update should highlight developments since the previous update, provide advance notice of anticipated major milestones, and include current statewide greenhouse gas (GHG) emission updates. These developments may include, but are not limited to, board hearings and release of significant documents, key support contracts, lawsuits, compliance milestones, and other actions that have the potential to substantially affect the success and effectiveness of the program.

The scope of the program updates should include: significant activities related to CARB's GHG reduction measures (for example, cap-and-trade, low-carbon fuel standard, or advanced clean cars), including an analysis of which programs are having the greatest impact in terms of GHG reductions per dollar spent; key developments on supporting activities such as updates to the AB 32 Scoping Plan, cap-and-trade auction fund regulations, coordination with entities outside of California like the Western Climate Initiative, and SB 375 sustainable communities plans; and the amount of cap-and-trade auction funds deposited into the Greenhouse Gas Reduction Fund and the current balance in that fund."

[2] For previous reports, see: http://www.arb.ca.gov/cc/jlbcreports/jlbcreports.htm

I. ARB GREENHOUSE GAS EMISSION REDUCTION MEASURES

This section focuses on the activities of three major ARB regulatory programs to reduce GHG emissions: Cap-and-Trade, Low Carbon Fuel Standard, and Advanced Clean Cars. We also discuss the landfill methane regulation mentioned in the supplemental budget language as well as developments related to reducing emissions from oil production and natural gas operations.

A. Cap-and-Trade

1. Background

California's Cap-and-Trade Regulation (Regulation) is the nation's first comprehensive market-based approach to reducing GHG emissions, and is one of the key measures identified in the AB 32 Scoping Plan. The Regulation was finalized and adopted by the Board in October 2011. Given the complexity of this Regulation and the use of many unique concepts in its design, we provide a lengthier background description below to aid the reader's understanding of these program updates.

Emissions Cap. The Regulation provides a firm declining limit, or cap, on 85 percent of California's GHG emissions. Beginning on January 1, 2013, the cap includes GHG emissions from electricity and large industrial sources. Beginning on January 1, 2015, GHG emissions from transportation fuels, and residential and commercial burning of natural gas and propane will be included in the cap. Coverage of the emission from combustion of these fuels assures that California will achieve the AB 32 target of reducing GHG emissions to 1990 levels by 2020.

The cap is designed to continue those reductions thereafter, thus maintaining GHG emissions at 1990 levels. The Regulation will reduce GHG emissions by about 23 million metric tons (MMT) in 2020, about 30 percent of the total needed to achieve the AB 32 target for that year. Further, the Regulation plays a key role in assuring the 2020 target is met by complementing other GHG emission reduction measures. For example, in the event that the anticipated reductions from other measures are not realized, the Regulation with its cap serves as a backstop for meeting the AB 32 emission reduction target.

Compliance. To comply with the Regulation, entities subject to the Regulation (facilities that emit 25,000 tons or more of carbon dioxide equivalent (CO_2e) per year), termed "covered entities," must submit compliance instruments (i.e., allowances or offset credits) equal to their emissions. Each allowance or offset credit is equal to one metric ton of CO_2e emissions.

Allowances*.* Allowances are issued by ARB. A portion of the allowances is allocated for free to covered entities, some are placed in a cost containment reserve, and the remainder is auctioned. Each year, the number of allowances declines in proportion to the cap, ensuring that the Regulation achieves intended emission reductions. Covered entities that aggressively reduce their emissions can trade their surplus allowances to firms that find it more expensive to reduce their emissions.

In the early years of the Regulation, ARB will be allocating most allowances for free to industrial covered entities to provide transition assistance and minimize leakage, and to electrical utilities to protect ratepayers from program costs.

Leakage refers to a reduction in GHG emissions within the State that results in an increase in GHG emissions outside the State. Risk of leakage is highest for industries in which production is highly “emissions intensive” (leading to high compliance costs) and trade exposed (i.e., that face competition from out-of-State producers). Over the past several years, ARB determined leakage risk for industrial sectors based on an evaluation of industry emissions and trade exposure. The results of this analysis informed the allocation of additional allowances to reduce compliance costs and maintain industry production in California.

One of the factors that ARB utilizes to calculate the number of free allowances for each industrial covered entity is GHG emissions efficiency. ARB uses emissions performance standards that evaluate the efficiencies for similar operations in the same industrial sector. This evaluation results in more efficient facilities within a sector receiving a larger percentage of their estimated compliance obligation for free as compared to less efficient facilities in the same sector. This process recognizes early investments to improve efficiency at facilities within the covered industrial sectors.

ARB staff developed two distinct types of allocation methodologies: (1) product-based, which is tied to production activity and applies to specific industry sectors listed in the Regulation, including the oil and gas extraction and refining sectors; and (2) energy-based, which is tied to fuel use and applies to those industry sectors without a product-based benchmark, including the food processing sector.

In addition to allocation, a number of allowances were placed in the allowance price containment reserve. This account was established to provide a safety valve to the allowance price and help to mitigate potential volatility in allowance prices. The account holds a specified number of allowances removed from the pool of allowances at the beginning of the program. Covered entities may purchase reserve allowances at specified prices during direct quarterly reserve sales. Covered entities can access the Reserve if prices are high or entities expect prices to be high in the future.

Offsets. Offset credits are another type of tradable compliance instrument. Offset credits represent GHG emission reductions or avoidance from activities outside of the capped sectors (i.e., reductions in sectors not subject to the Cap-and-Trade Regulation). Covered entities can use ARB-issued offset credits to meet up to eight percent of their compliance obligation for each compliance period. For example, if a covered entity has 100,000 metric tons of covered emissions they submit no fewer than 92,000 allowances and no more than 8,000 ARB-certified offset credits in order to meet their compliance obligation. The ability to use offset credits is an important mechanism for cost-containment under the Regulation.

Offset projects are quantified under regulatory protocols that are approved by the Board and must meet the AB 32 offset criteria of being real, additional, quantifiable, permanent, verifiable, and enforceable. ARB has approved offset protocols for four project areas: forestry, urban forestry, livestock digesters, and the destruction of ozone depleting substances. ARB accredits third-party verifiers to independently verify all offset project reports. Accredited third-party verifiers have extensive backgrounds in related areas, including appropriate field and auditing experience, as well as the scientific and engineering knowledge required for verification. Third-party verifiers must work through ARB accredited verification bodies and must complete ARB's training and pass a specialized test.

ARB can also approve voluntary offset registries that meet regulatory criteria to help administer the program. Offset project registries provide general offset project guidance, reporting, and other support for verification activities, as well as issue voluntary offset credits and list voluntary offset projects. ARB does not delegate any of its oversight or enforcement authority to the verifiers or approved registries. ARB does not currently issue or accept offset credits that originate from projects located outside of the United States.

<u>Electronic Compliance System</u>. The Compliance Instrument Tracking System Service (CITSS) is a software program developed to hold and retire compliance instruments (ARB allowances or offset credits) and to record transactions regarding compliance instruments (e.g., purchases, trades between account holders).

<u>Market Oversight</u>. ARB continues to put a priority on market oversight to ensure success in reducing emissions and the integrity of the California carbon market. ARB also established a team focused on monitoring and oversight. ARB monitors the auctions during the three-hour bidding window and reviews submitted bids to determine if there are any indications of anti-competitive behavior. In addition to engaging in ongoing analysis and modeling, ARB is collaborating with several organizations including: the U.S. Commodity Futures Trading Commission; the Federal Electricity Regulatory Commission; the California Independent System Operator; and the State Attorney General's Office, to anticipate, detect, and respond to market manipulation. The Regulation imposes holding limits and auction purchase limits to prevent participants from acquiring undue market power.

Fuels in Cap-and-Trade. Beginning in 2015, transportation fuels and residential and commercial burning of natural gas and propane will also be covered by the Cap-and-Trade Program, resulting in a broad program scope covering approximately 85 percent of California's GHG emissions. Including fuels will help achieve the objective of reducing emissions not only by 2020, but also help to drive the long-term transition to cleaner fuels well into the future.

Broad Cap-and-Trade Program coverage helps ensure that the overall AB 32 target will be met and allows for capped entities to obtain the lowest cost GHG emission reductions, which in turn minimizes the overall impact of the Cap-and-Trade Program. If fuels are not included under the cap, it reduces the certainty that the AB 32 target will be achieved. Further, the remaining covered sectors would bear the burden of the emissions reductions in attaining the 2020 target, increasing the price of allowances and therefore goods and services in the capped sectors.

The LCFS and Cap-and-Trade are complimentary, the two programs work together to encourage the development, deployment, and demand for clean fuels. Investments made to comply with one program will result in reduced compliance requirements for the other program, ensuring the price impact on wholesale fuels is not additive. Fuels under the cap will also provide significant air quality co-benefits, by providing reductions in criteria emissions.

2. Recent Developments – July through December 2013

New ARB activities to support the Cap-and-Trade Program during the second half of 2013 included: development and Board review of proposed amendments to the Regulation, the development and proposal of a new compliance offset protocol, allowance auctions, issuance of the first compliance offset credits, and progress on linkage with Québec. These activities are described in more detail below, along with a discussion of litigation and contracts to support Cap-and-Trade.

Proposed Regulation Amendments. To enhance implementation and oversight of the Cap-and-Trade Program, respond to Board direction, and address stakeholder concerns, staff proposed regulatory amendments on September 4, 2013, which were considered by the Board on October 25, 2013. The Staff Report describing the proposed amendments is available at: http://www.arb.ca.gov/regact/2013/capandtrade13/capandtrade13.htm. Staff also proposed a new offset protocol related to mine methane capture that will provide an additional supply of compliance instruments to the market within the existing eight percent offset limit.

The following are the most significant changes proposed to the Regulation:

- A provision to extend 100 percent transition assistance to covered entities in the industrial sector through 2017 in light of not yet completed research on leakage to ensure regulatory certainty while studies are completed.
- A methodology to provide transition assistance to generators of electricity and useful thermal output who have legacy contracts that do not allow for the pass-through of carbon costs.
- A mechanism to address "But-For CHP" entities that are subject to the Regulation only because GHG emissions from combined heat and power (CHP) operations put these entities over the 25,000 metric tons of GHG emissions threshold during the first compliance period.

- A methodology to provide allowances to new industrial sources.
- A methodology to provide allowances to upstream natural gas suppliers for the benefit of ratepayers.
- Provisions to reduce leakage risk by updating benchmarks and that will provide additional free allowances to existing sectors during the second compliance period.
- A methodology for providing compliance assistance to public universities and public service facilities.
- Clarification of resource shuffling provisions.
- Changes to improve the methodology for providing allowances to petroleum refineries.
- A provision for additional price containment to address the risk of higher than anticipated future emissions, while maintaining environmental integrity.
- A mechanism to exempt waste-to-energy facilities for the first compliance period.
- Further processes to ensure clarity in offset implementation.
- A continued exemption from the Regulation for the military by deleting the existing sunset date.

The proposed Mine Methane Capture compliance offset protocol (Mine protocol) includes quantification methodologies for the capture and destruction of fugitive methane from active and abandoned mines that would otherwise be vented to the atmosphere. There are no federal or state regulations regarding the capture and destruction of fugitive methane that must be vented from mines for health and safety reasons. California has about a dozen abandoned mines, but no active mines that could potentially support offset projects under the proposed Mine protocol. The Mine protocol has the potential to supply approximately 60 MMT of offset credits for the Cap-and-Trade Program.

While the adoption of the Mine protocol is expected to potentially add significant supply to the offset pool, the existing and proposed protocols are not enough to supply the number of offsets that are allowed for under the Cap-and-Trade Regulation. ARB will work with stakeholders to identify potential new protocols that are applicable in California and nationally that would meet the rigorous AB 32 offset criteria. The biggest challenge in identifying offset protocols that are applicable in California is ensuring the offsets are additional per AB 32. Because California directly regulates many emissions sources for public health and environmental reasons, there are very few opportunities to develop in-state offset protocols. .

Upon hearing these amendments in October, the Board directed staff to complete additional work. The final regulatory package will be considered by the Board in Spring 2014.

<u>Auctions</u>. Current and future vintage allowances are sold in separate auctions that are held on the same day at the same time. Current vintage auctions offer current year allowances from the State and those consigned by electric distribution utilities (utilities). Advance auctions offer only State-owned allowances from the budget three years

subsequent to the current calendar year. The most recent auctions were held August 16 and November 19, 2013, and included current vintage (2013) allowances for the current auction and State-owned 2016 future vintage allowances for sale at the advance auction. Prior to the certification of each auction, ARB staff and the Market Monitor carefully evaluated the auction, and determined that the auction process and procedures complied with the requirements of the Cap-and-Trade Regulation. The funds raised by the sale of allowances consigned by utilities are to be returned back to ratepayers in accordance with rules set by the California Public Utilities Commission[3] (CPUC) or their governing boards. The remaining funds received for the sale of State-owned allowances are deposited into the State's Greenhouse Gas Reduction Fund, to be allocated in accordance with the State Budget. In sum, about $533 million was raised by the sale of State-owned allowances at the first five auctions. More information on Cap-and-Trade Program auction proceeds is provided in Section D of this report. Detailed results from the auctions are available at: http://www.arb.ca.gov/cc/capandtrade/auction/auction.htm.

Reserve Sale. Reserve sales are scheduled to occur each quarter. No covered entities or opt-in entities indicated an intent to bid for allowances by the bid guarantee deadlines for the reserve sales held through December 2013. Therefore, all reserve sales scheduled to date were cancelled.

Offsets. ARB continues the steps necessary to support carbon offsets, which reduce the costs of compliance with the Regulation, and encourage investments in sustainable practices throughout the Nation's economy. To date, ARB has: (1) accredited 82 specially trained third-party offset verifiers, and certified 17 verification bodies to serve as partners in evaluating the quality of offset projects submitted for approval; (2) formally approved the American Carbon Registry and the Climate Action Reserve as offset project registries that help evaluate compliance-grade carbon offset projects under the Regulation; (3) listed 74 early action projects and nine compliance projects (listing signifies these projects are moving toward potential issuance of ARB compliance offset credits); and (4) audited either in-person or through a desk review 100 percent of the compliance offset protocol project verifications to date. At this time ARB only issues compliance offset credits for verified offset projects developed using the four approved offset protocols and located within the continental United States. ARB generates compliance credits for those projects that comply with the full requirements set forth in the Regulation and applicable offset protocol. To date, ARB has issued over 4.2 million compliance offset credits. ARB will continue to audit a large percentage of verifications to assure verification activities are conducted accurately and according to the Regulation.

Linkage. The Cap-and-Trade regulatory amendments to link the California and Québec market programs came into effect on October 1, 2013. These amendments support a linked program beginning on January 1, 2014. As part of issuing the four findings

[3] In Decision D1212033 (Decision Adopting Cap-and-Trade Greenhouse Gas Allowance Revenue Allocation Methodology for the Investor-Owned Electric Utilities), the CPUC directed the utilities to distribute the auction proceeds to ratepayers.

required by SB 1018[4], Chapter 39, Statutes of 2012 (Government Code section 12894), the Governor directed ARB to provide a linkage readiness report by November 1, 2013. On November 1, 2013, ARB provided a linkage readiness report to Governor Brown recommending implementation of a linked program beginning on January 1, 2014. A copy of this report may be accessed at: http://www.arb.ca.gov/cc/capandtrade/linkage/arb_linkage_readiness_report.pdf.

On October 1, 2013, California and the Government of Québec also announced the completion of an agreement that defines the process for working collaboratively and jointly to harmonize and integrate the California and Québec cap-and-trade programs. This agreement fulfills the direction in Board Resolution 13-7 to document the coordination process in a written agreement. A copy of this agreement may be accessed at: http://www.arb.ca.gov/cc/capandtrade/linkage/ca_quebec_linking_agreement_english.pdf

Cap-and-Trade Litigation. In the second half of 2013, there was activity on two of the three cases against ARB regarding the Cap-and-Trade Program. This section describes those two cases and future reports will cover the third case, *Citizens Climate Lobby and Our Children's Earth Foundation v. California Air Resources Board,* if there are significant developments.

On November 13, 2012, the California Chamber of Commerce filed a lawsuit, *California Chamber of Commerce et al. v. California Air Resources Board et al.*, in Sacramento Superior Court to challenge ARB's authority to conduct an auction under the Cap-and-Trade Program. Alternatively, the California Chamber of Commerce alleges that if the court finds authority exists in AB 32 for the auction, then the court should find that the auction and the sale of allowances by the State at auction constitute an unconstitutional tax. The lawsuit asks the judge to issue a decision prohibiting ARB from conducting future auctions, and asks for judicial declarations that the auction provisions of the Regulation are invalid and unenforceable, and impose an unconstitutional tax. ARB maintains that AB 32 provided it with authority to develop a Cap-and-Trade Program, including an auction, and that the auction does not constitute a tax. A hearing on the merits of the petition was held on August 28, 2013.

On April 16, 2013, Morningstar Packing Company filed a similar suit to the California Chamber of Commerce case noted above, *Morningstar Packing Company et al. v. California Air Resources Board et al.* The primary difference between this case and the California Chamber of Commerce case is that Morningstar adds claims that AB 1532 (Pérez, Chapter 807, Statutes of 2012), SB 535 (De León, Chapter 830, Statutes of 2012), and SB 1018 (Budget and Fiscal Review Committee, Chapter 39, Statutes of 2012) pursuant to the provisions of Proposition 26, cannot act to save the auction provisions of the Cap-and-Trade Program from tax challenges because these bills were not passed with a super-majority vote. Morningstar asserts that to the extent these bills (AB 1532, SB 535, and SB 1018) were designed to authorize, ratify, or otherwise adopt

[4] SB 1018 equivalency findings available at: http://gov.ca.gov/news.php?id=17933

the auction provisions of the Cap-and-Trade Regulation, these bills would be considered unconstitutional taxes under Proposition 26. ARB filed an answer to the petition on May 29, 2013, denying the claims in the petition. This case was deemed "related" to the California Chamber of Commerce case and thus was also heard on August 28, 2013.

On November 12, 2013, the court issued a joint decision on both the California Chamber of Commerce and Morningstar Packing Company cases, denying the two petitions and finding in favor of ARB on all counts. Specifically, the Court found that "the sale of allowances is within the broad scope of authority delegated to ARB in AB 32." The judge upheld ARB's auction provisions, noting the extensive public outreach and stakeholder engagement throughout the Cap-and-Trade Program development. He also held that the Legislature's passage of several bills in 2012 directing the use of auction proceeds helped to "ratify" the Legislature's original grant of authority in AB 32. With respect to the taxation issue, the judge found that "on balance," the auction operates "more like traditional regulatory fees than taxes" because its primary purpose is regulatory in nature. In support of this finding, the judge relied on the restrictions imposed by the 2012 legislation requiring auction proceeds to "be used to further the regulatory purposes of AB 32." He noted that existing cases are not on point, as the auction is different from other fees that have been assessed. However, he found that the amount charged for allowances bears a "reasonable relationship with the covered entities' (collective) responsibility for the harmful effects of GHG emissions." The Petitioners appealed the decision on February 14, 2014 in the Third District Court of Appeal.

<u>Cap-and-Trade Program Contracts</u>. Academia and private contractors are helping ARB achieve the goals of AB 32 while minimizing the impact of Cap-and-Trade on California industry. Current contracting efforts are directed at: conducting the auctions and reserve sales, monitoring the carbon market, measuring and monitoring the potential for GHG emissions leakage, helping ARB develop emissions efficiency benchmarks in order to allocate allowances to minimize leakage, implementing the forest offset protocol, developing a new compliance offset protocol for methane reduction from rice cultivation, and monitoring the biological impacts of forest projects. Key on-going contracts are discussed in recent developments, and contracts in development are discussed in the upcoming milestones sections below.

Cap-and-Trade Program Administration Contracts:

As part of collaborating with other jurisdictions, administrative support functions for the Cap-and-Trade Program have been transitioned to WCI, Inc. WCI, Inc.'s approach to coordinating administrative support is to have each jurisdiction specify its administrative requirements, and then for WCI, Inc. to provide support that meets these specifications. Coordinating administrative support through WCI, Inc. benefits California and the other jurisdictions. Coordinated support ensures that all cap-and-trade programs in the participating jurisdictions use the same highly secure infrastructure, including the allowance tracking system and auction platform. Coordinated support also ensures that analyses performed to support market monitoring in each jurisdiction are conducted consistently and effectively for the entire compliance instrument market across all the programs. Finally, coordinated support enables the programs to share the cost of developing and maintaining program infrastructure, thereby reducing the costs for each jurisdiction. The following four program administration contracts were initially established by ARB to initiate California's Cap-and-Trade Program; the work has been transitioned to WCI, Inc.-administered contracts.

- WCI, Inc. has entered into a contract with Markit Group Limited for the purpose of enabling and conducting linked auctions and jurisdictional reserve sales of California and Québec greenhouse gas emission allowances. This work builds upon the substantial effort by California to implement allowance auctions and reserve sales solely for its Cap-and-Trade program.

- WCI, Inc. has entered into a contract with Deutsche Bank National Trust Company for the purpose of providing escrow services for California and Québec as they link their cap-and-trade programs. This work builds upon the substantial effort by California for financial services of its Cap-and-Trade Program.

- WCI, Inc. has entered into a contract with Monitoring Analytics LLC for the purpose of enabling multi-jurisdictional monitoring for California and Québec linked auctions and linked markets in greenhouse gas compliance instruments and related derivatives. This work builds upon the substantial effort by California for market monitoring of its Cap-and-Trade Program, and enables the additional work required to expand the monitoring effort for California to include Québec and to monitor the market as a whole.

- WCI, Inc. has entered into a contract with SRA International to provide continued technology development and support to bring the CITSS to maturity as well as to provide hosting services for the CITSS.

Other Cap-and-Trade Program Contracts:

- ARB entered into an agreement with the University of California Energy Institute at the University of California at Berkeley to obtain expert analysis and advice on Cap-and-Trade Market design, operation, and monitoring. As part of this agreement the Emissions Market Assessment Committee (EMAC), formerly the Market Surveillance Committee, was formed and funded. Over the last several months, EMAC provided advice and analysis for ARB in important program areas: the potential implementation of a price containment ceiling, the release of market information, the potential modification of holding limits, and ways to modify the auction to increase market transparency. EMAC presented discussion papers on these topics at a public meeting on November 14, 2013.

- ARB entered into an agreement with the University of California Energy Institute on April 1, 2012 to establish a market simulation group (MSG) to help ARB staff identify opportunities for program improvement. The MSG will hold meetings with stakeholders to identify market rules or situations that might lead to market disruptions that could be investigated through simulation analysis. The MSG will complete the simulation analysis and provide results and recommendations to the Board by Spring 2014. More information on the MSG can be found at: http://www.arb.ca.gov/cc/capandtrade/simulationgroup/simulationgroup.htm.

- In collaboration with economic researchers from Resources for the Future and the University of California at Berkeley, ARB continued leakage research efforts to establish a baseline for how industries have historically responded to energy price changes and to identify metrics to evaluate future leakage risk. Any changes in leakage risk determinations would require regulatory amendments, which would need to be in place before industrial allocation occurs for the third compliance period in Fall 2017.

- ARB initiated a study with the California Polytechnic University in San Luis Obispo and the University of California to analyze the ability of the food processing sector to pass on regulatory costs to consumers and to the agricultural sector. The analysis will be used to assess leakage risk, which will inform the allocation of allowances for the sector in the third compliance period. Researchers are currently collecting facility data and anticipate providing preliminary results in 2015.

- ARB and contractors are currently surveying several industries to collect data that will enable ARB staff to establish new benchmarks or to modify existing benchmarks. Results to date have informed development of the revised product-based benchmarks in the regulatory amendments presented to the Board.

- ARB has contracted with the University of California at Davis to develop recommendations for a monitoring system for unanticipated adverse biological impacts caused by the U.S. Forest Protocol. This work supports ARB's efforts to use an adaptive management approach to address unanticipated forest impacts that could occur as part of the implementation of the Cap-and-Trade Program. The draft report containing the UC Davis recommendations is scheduled to be discussed at a stakeholder meeting in early 2014.

- ARB has contracted with California Polytechnic State University to provide technical forestry support to ARB staff, taking into account programmatic, policy, biometric, modeling, biology, and harvest management activities. The contract will support development of guidance to simplify highly complex calculations, and increase the understanding and accessibility of protocol requirements under ARB's compliance offset protocol for forestry projects.

- ARB has contracted with Michigan State University to update software to facilitate reporting of the required data and streamline calculation of emission reductions from adoption of eligible farming practices under the rice methane protocol. This contract will aid in keeping project costs down and limit the time farmers have to spend complying with protocol requirements.

- ARB has a contract in place with Lawrence Berkeley National Laboratory to conduct a scoping study on existing carbon capture and storage quantification methodologies appropriate for California's specific geology and hydrology. The goal is to move towards development of a monitoring, verification and accounting method that is appropriate for incorporation into the Cap-and-Trade Program and Low Carbon Fuel Standard Program.

3. Upcoming Milestones – January through June 2014

Below is a brief summary of some of the upcoming milestones ARB is working to achieve during the first half of 2014. More information on staff's activities and upcoming public meetings related to the Cap-and-Trade Program can be found at: http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm.

- ARB will continue to hold its own quarterly auctions as scheduled in the Regulation.

- ARB began implementing a linked program with Québec starting January 1, 2014. Linkage allows entities in both jurisdictions to transfer compliance instruments with one another. Joint auctions will not be held until the joint auction platform has completed testing and a joint practice auction has taken place.

- Pursuant to direction from the Board provided in Resolution 13-44, staff will continue working with stakeholders to develop a final package of regulatory amendments, including the Mine protocol, for consideration by the Board no later than May 2014. In this process, staff will make available revised regulatory text and additional information for a formal 15-day public comment period in Spring 2014 prior to Board consideration.

- ARB continues to work with local air districts to refine the procedures in the 2011 Adaptive Management Plan concerning air quality and data gathering for the evaluation of potential localized air quality impacts due to the Regulation. To support adaptive management, ARB added a requirement in the Mandatory Greenhouse Gas Emissions Reporting Regulation for facilities to flag yearly changes (increases or decreases) in GHG emissions, including the reason for the change. More information on the Adaptive Management Plan can be found at: http://www.arb.ca.gov/cc/capandtrade/adaptive_management/plan.pdf.

- ARB continues to work on a new offset project protocol for avoided methane emissions from changes in rice cultivation practices, for Board consideration in 2014.

B. Low Carbon Fuel Standard

1. Background

ARB approved the Low Carbon Fuel Standard Regulation (LCFS) in 2009 with requirements to reduce the carbon intensity (CI) of gasoline and diesel fuels by at least 10 percent by 2020. This standard sets declining annual targets between 2011 and 2020. The LCFS will reduce GHG emissions from the transportation sector in California by about 15 MMT in 2020. These reductions account for almost 19 percent of the total GHG emission reductions needed to achieve the State's mandate of reducing GHG emissions to 1990 levels by 2020.

The LCFS requires regulated parties to electronically submit all quarterly progress and annual compliance reports to ARB. To this end, ARB developed the LCFS Reporting Tool, a secure, interactive, web-based system, through which all regulated parties are required to report data on fuel volumes and CI. Through these reports, providers of transportation fuels must demonstrate that the mix of fuels they supply meets LCFS CI standards for each annual compliance period. Each fuel in the mix is assigned a CI value, based on the "life cycle" GHG emissions associated with the production, transportation, and use of fuels in motor vehicles. Each fuel's complete life cycle, from "well-to-wheels" (or from "seed-to-wheels" for biofuels made from crops), represents that fuel's "fuel pathway." To date, there are more than 225 individual fuel pathways that regulated parties can use to describe the GHG emissions associated with their fuels.

Pursuant to the Board's direction, ARB continues to collaborate with stakeholders on evaluating CI for crude oils, and other technical assessments related to low-energy-use refining. Also, ARB continues to analyze and recommend for approval, numerous lower CI fuel pathways for which fuel producers have applied--confirming that innovations are occurring in the fuel sector. Also of note, California is attracting significant investments in the development of advanced biofuels. In order for advanced biofuels to be available in sufficient quantities, investment in these fuels needs to occur. ARB has been monitoring investment in biofuels and has seen a slow, but steady, increase in investment. This is true in both California and nationwide. Private equity investments into low-CI fuel projects in North America total $4.85 billion since 2007.[5] Last year, active, low-carbon fuel projects received $1.45 billion in new private equity investments.[6] Of these funds, approximately $2.3 billion, or 47 percent, has been invested in California biofuels companies.[7]

As directed by the Board, in conjunction with the California Energy Commission, ARB is considering the methodology and technical requirements necessary for a thorough, updated economic analysis of the LCFS. Furthermore, ARB is working with various universities to update the indirect land use change (iLUC) values for corn ethanol, sugarcane ethanol, and soy biodiesel, while also developing iLUC values for palm oil,

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[5] E2 "Advanced Biofuel Market Report 2013".
[6] Ibid. Annual investment data collected from August 2012 – August 2013.
[7] Data from PricewaterhouseCoopers/Data by Thomson Reuters, Cleantech, and Collaborative Economics. Investment data tracked from 2006.

canola oil, and sorghum. Recommendations on iLUC values will undergo independent academic review.

As of November 2013, there are approximately 2.04 million "excess" credits in the system—that is, more total credits than deficits. This excess means that regulated parties are over-complying with the LCFS, generating additional LCFS credits that can be used for future compliance when the standard becomes more stringent. In addition to banking credits, regulated parties have begun trading credits. Both of these developments are positive indicators that the LCFS is functioning as intended.

Despite these positive indicators, the petroleum refining industry is concerned about compliance with the LCFS in future years when the standard becomes more stringent. That is because they believe lower-CI liquid biofuels they prefer to blend with conventional gasoline and diesel fuel are not being developed quickly enough in commercial quantities and will not be available. Staff continues to believe that the availability of these advanced biofuels will grow sufficiently to meet demand. Additionally, liquid biofuels are just one of several paths that refiners can take to comply with the LCFS. They can also purchase LCFS credits in the marketplace from producers of lower-CI fuels, such as electricity, natural gas, biogas, and hydrogen, or they can invest in the production of these fuels to generate their own LCFS credits.

2. Recent Developments – July through December 2013

<u>LCFS Litigation</u>. In December 2009 and early 2010, three lawsuits were filed against ARB over the LCFS—two in federal court and one in State court. The federal lawsuits were brought by trade associations of ethanol producers and refiners who claim that the LCFS is preempted under the federal Energy Independence and Security Act (EISA) of 2007 and violates the dormant Commerce Clause of the U.S. Constitution (either because the LCFS impermissibly regulates activities beyond California's borders or because it discriminates against out-of-state corn ethanol by assigning corn ethanol from the Midwest a CI value higher than that of corn ethanol made in California). Plaintiffs claim that corn ethanol will eventually be excluded from the California market in favor of more advanced biofuels that have a lower CI value. By contrast, ARB showed that many corn ethanol producers from the Midwest have in fact registered with ARB with CI values that are well below gasoline and, indeed, even less than California corn ethanol. The LCFS program allows for a determination of individualized CI numbers for each facility, provided that certain criteria are met.

In December 2011, the lower court ruled on the dormant Commerce Clause claims but did not reach the federal EISA preemption issue. In April 2012, the Ninth Circuit granted ARB's request for a stay of the preliminary injunction, which allowed ARB to resume enforcement of the LCFS regulation during the pendency of the lawsuit. On October 16, 2012, the Ninth Circuit considered oral arguments from the parties.

On September 18, 2013, a three-judge panel of the Ninth Circuit ruled that the ethanol provisions in the LCFS are not facially discriminatory and remanded the case for the district court to determine whether the ethanol provisions discriminate in purpose or effect. Furthermore, the Ninth Circuit ruled that the LCFS crude oil provisions are neither facially nor in purpose or effect discriminatory. The Court left the LCFS in place. The plaintiffs filed for *en banc* hearing with the Ninth Circuit which the court subsequently denied.

In August 2011, a State court case alleged that ARB did not fully comply with the Administrative Procedure Act and the California Environmental Quality Act when adopting the LCFS. In November 2011, the State court ruled in favor of ARB on all 14 causes of action raised by the plaintiffs. The plaintiffs have since appealed the case. The appellate court directed the parties to prepare a supplemental brief regarding email communications from two ARB contractors that were excluded from the rulemaking record. In November 2012, ARB's supplemental brief was supplied to the appellate court.

On July 15, 2013, the Court of Appeal (Fifth District, Fresno) issued its opinion in the State lawsuit, finding that ARB had committed some procedural violations in adopting the Regulation but holding that the LCFS would remain in effect and that the ARB can continue to implement and enforce the LCFS while ARB corrects certain aspects of the procedures by which the LCFS was originally adopted. Accordingly, ARB staff is continuing to implement and enforce the LCFS while preparing for the Board's consideration in 2014 a consolidated regulation package that responds to the Court's decision and contains additional amendments important for the continued success of the LCFS program. Meanwhile, the 2013 LCFS standards, which represent a 1.0 percent decrease in carbon intensity from the 2010 baseline values for gasoline and diesel, will remain in effect through 2014.

<u>LCFS Contracts</u>. Because the LCFS is at the forefront of life cycle assessments— taking into account the GHG emissions related to the production, transport, and use of transportation fuels— it has required significant technical assistance from academia and private contractors. Most of the contracts that support LCFS implementation are directed at estimating iLUC for numerous alternative fuels.

In order to place these contracts in context, it is helpful to consider how iLUC occurs. An iLUC impact is initially triggered when an increase in the demand for a crop-based biofuel begins to drive up prices for the necessary feedstock crop. This price increase motivates farmers to devote a larger proportion of their cultivated acreage to that feedstock crop. Supplies of the displaced food and feed commodities subsequently decline, leading to higher prices for those commodities. The lowest-cost way for many farmers to take advantage of higher commodity prices is to bring non-agricultural lands into production. Converting open space to agriculture releases carbon sequestered in soils and vegetation. This land use conversion causes an "indirect" impact by contributing to increasing carbon dioxide emissions.

While there is general consensus that iLUC occurs, there is uncertainty regarding the size of the impact, which is modeled because it cannot be directly measured. The model used to estimate iLUC has undergone numerous revisions, and there are many assumptions that must be made when considering the inputs to the model. Because of the complexity of the model and the uncertainties associated with iLUC, ARB has contracted with academic institutions, including the University of California at Berkeley, the University of California at Davis, Purdue University, and the University of Wisconsin, to assist with these analyses.

Other supporting contracts include one with Stanford University to estimate the CI of the crude oils processed in California refineries and another with Life Cycle Associates to support staff's assessments of direct GHG emissions from biofuel production facilities.

Alternative Diesel Fuel Regulation. Because of the incentives provided by both the LCFS and the federal renewable fuel standard, staff recognized the need to develop a regulation that can provide a clear, streamlined process to foster the development of new alternative diesel fuels that will help meet the objectives of AB 32.

In 2013, staff held three public workshops to inform the development of a regulation governing the commercialization of new alternative diesel fuels for on-road motor vehicles. On October 23, 2013, staff released to the public a proposed regulation, which will be considered by the Board in 2014.

This rulemaking effort is a culmination of several years of research and analysis to determine the emissions impacts of fuels that may replace motor vehicle diesel fuel in the market, including both renewable diesel and biodiesel blends made with conventional diesel. The proposed regulation contains a three-stage process for new alternative diesel fuels to enter the commercial market that requires the identification of any pollutants of concern associated with new alternative diesel fuels, the significance level at which emissions may increase, and appropriate mitigation measures to be required to ensure that air quality protections currently in place for conventional diesel fuel are maintained. In addition to the three-stage commercialization process, the proposed regulation also contains specific requirements for biodiesel, which is the first alternative diesel fuel for widespread use.

3. Upcoming Milestones – January through June 2014

Below is a brief summary of some of the upcoming milestones for LCFS and related programs during the first half of 2014. More information on staff's activities and upcoming public meetings related to the LCFS can be found at: http://www.arb.ca.gov/fuels/lcfs/lcfs.htm.

ARB staff is continuing to implement and enforce the LCFS, while developing a new consolidated regulation package that responds to the Fifth Circuit Court of Appeal's decision and provides additional amendments important for the continued success of the LCFS program. In the first half of 2014, staff will be conducting a series of public workshops to discuss proposed revisions to the current LCFS.

Potential amendments include:

- Revised indirect land use (iLUC) values for corn ethanol, sugarcane ethanol, and soy biodiesel.
- New iLUC values for sorghum, canola, and palm oil.
- Electricity credits for fixed guideway (rail) and electric forklifts.
- A provision for low-energy-use, low-complexity refineries.
- An amendment to reward crude oil producers for innovative crude oil production (e.g., carbon capture and sequestration, solar-generated steam, biomass-generated steam).
- A cost containment provision.
- A provision to recognize greenhouse gas emission reductions at refineries as a compliance option.
- Revised compliance standards.

In 2014, the Board will also consider the Alternative Diesel Fuel Regulation.

C. Advanced Clean Cars

1. Background

ARB developed the Advanced Clean Cars Program to reduce emissions from the transportation sector that achieve California's long-term climate goals, and to provide a comprehensive approach to further reduce criteria and GHG emissions from light-duty vehicles beyond 2016. This recent Program closely aligns the Low Emission Vehicle, Zero Emission Vehicle (ZEV), and GHG light-duty vehicle standards to lay the foundation for the next generation of ultra-clean vehicles. Specifically, the Advanced Clean Cars Program includes more stringent GHG emission standards, tighter criteria pollutant standards, and increased ZEV production requirements from 2017-2025 in passenger cars and trucks. This suite of regulations furthers California's progress towards near- and long-term climate goals, as well as aiding attainment of ambient air quality standards.

Zero Emission Vehicles. In January 2012, ARB approved the Advanced Clean Cars Program through rulemaking. The ZEV Program was amended as part of that rulemaking, increasing the zero emission vehicle requirements over time to about 15 percent of new car sales in 2025. The ZEV Program focuses attention on commercialization of battery electric vehicles, hydrogen fuel cell electric vehicles, and plug-in hybrid electric vehicles. The ZEV mandate will continue as a distinct but complementary program in California and the ten states that have also adopted it. The mandate is a critical element toward meeting the 2050 GHG emission goal established by Executive Order B-16-2012 which sets a target to reduce GHG emissions for the transportation sector by 80 percent below 1990 levels.

Clean Fuels Outlet. As part of the Advanced Clean Cars Program, ARB has been pursuing strategies to ensure that fueling infrastructure is available for hydrogen fuel cell vehicles as these vehicles reach early commercial volumes.

GHG Light-Duty Vehicle Standards. More stringent GHG emission standards were developed through a joint effort with the U.S. EPA and the National Highway Traffic Safety Administration (NHTSA) that evaluated available and emerging GHG emission reduction technologies for light-duty vehicles. These requirements will reduce new car carbon dioxide emissions by about 36 percent and new truck carbon dioxide emissions by about 32 percent during the model years 2016 through 2025. In October 2012, U.S. EPA finalized similar GHG emission standards while NHTSA finalized similar fuel economy standards. Subsequently, in November 2012 the Board approved amendments to the Advanced Clean Cars regulations that allowed vehicle manufacturers to demonstrate compliance with ARB regulations based on compliance with the federal standards providing a path for vehicle manufacturers to meet a single set of national GHG emission standards through the 2025 model year. On December 27, 2012, U.S. EPA approved ARB's request for a waiver under the Clean Air Act, giving California the green light on its Advanced Clean Cars package of regulations.

2. Recent Developments – July through December 2013

ZEV MOU. On October 24, 2013, California and seven other states (Connecticut, Maryland, Massachusetts, New York, Oregon, Rhode Island and Vermont) that have adopted California's ZEV regulations signed a Memorandum of Understanding (MOU) that commits the states to successful implementation of our ZEV programs and identifies several areas of coordination and cooperation between states. The MOU commits the ZEV states to develop a joint ZEV Action Plan modeled on California's ZEV Action Plan. Combined, the ZEV states and California set a goal of seeing 3.3 million ZEVs on the road by 2025. Representatives of six of the seven states that signed the above described MOU presented their efforts to implement their ZEV programs at the October 2013 Board hearing.

At the October 2013 Board Hearing, ARB staff updated the Board on the status of the Advanced Clean Cars program and proposed a joint midterm review with federal agencies of the regulatory implementation and the status of the ZEV regulation. The midterm review is anticipated to be completed by 2018.

Incentives for Introduction of ZEVs and Fueling Stations. In addition to ZEV regulatory efforts, ARB works with the California Energy Commission (CEC) and local administrators to provide financial incentives from the Air Quality Improvement Program that further encourage market adoption of clean vehicles and equipment. In July and September 2013, the Board approved the Fiscal Year 2013-14 Funding Plan, which authorized a total of $59.55 million in ZEV funding under the Clean Vehicle Rebate Project. To date, this Project has provided over $86 million to reduce the incremental cost of over 40,000 ZEVs for use on California's roadways.

On September 28, 2013, Governor Brown signed AB 8 (Perea, Chapter 401, Statutes of 2013), which extends the fees that support the Air Quality Improvement Program and corresponding advanced technology vehicle and infrastructure funding provided by the CEC until 2023. Additionally, AB 8 secured up to $20 million annually in funding from the CEC for hydrogen fueling infrastructure, until at least 100 publicly available hydrogen-fueling stations are operating in California.

Advanced Clean Cars Contracts. ARB continues to pursue several contracts to support overall implementation of the Advanced Clean Cars Program and 2018 review of the ZEV Program.

- ARB has contracted with UC Davis to conduct research on the ZEV market. The objective is to capture statewide data on consumer attitudes, barriers, and motivators toward purchasing ZEVs. The purpose of the research is to identify the factors that influence new-vehicle purchase decisions and the areas where additional policies, incentives, or outreach could be implemented to facilitate greater adoption rates of cleaner cars.

- ARB has contracted with UC Davis to conduct research on household-level plug-in electric vehicles usage and charging behavior in order to quantify emission benefits. The project is called, "Advanced Plug-in Electric Vehicle Travel and Charging Behavior."

- ARB has selected University of California at Los Angeles to evaluate trends in the emerging ZEV market relative to policy and market factors. The project is called, "Examining Factors That Influence ZEV Sales in California."

3. Upcoming Milestones – January through June 2014

Below is a brief summary of some of the upcoming milestones for Advanced Clean Cars during the first half of 2014. More information on staff's activities and upcoming public meetings on this program can be found at:
http://www.arb.ca.gov/msprog/consumer_info/advanced_clean_cars/consumer_acc.htm

- ARB staff has begun work on the mid-term review of the Advanced Clean Cars Program, to be completed by 2016. In conjunction with the U.S. EPA and NHTSA, ARB will assess the technology used, compliance rates, and costs associated with the greenhouse gas regulations and the ZEV regulation. Additionally, the mid-term review will assess market uptake of zero emission vehicles.

- ARB staff is currently developing the Fiscal Year 2014-15 Air Quality Improvement Program Funding Plan, which will evaluate funding needs to further support the transition to mainstream use of ZEV technologies.

D. Other Regulations – Landfill Methane

1. Background

On June 25, 2009, the Board approved a regulation that reduces emissions of methane from municipal solid waste landfills. The landfill methane control measure is a discrete early action measure. The Landfill Regulation, which became effective in June 2010, requires owners and operators of certain municipal solid waste (MSW) landfills to install gas collection and control systems. It also requires owners of landfills with existing and newly installed gas collection and control systems to operate them in an optimal manner.

ARB originally estimated that there would be a reduction of about 0.4 MMT of carbon dioxide equivalent as a result of bringing 14 MSW landfills into compliance with the Regulation by 2020. The implementation and enforcement of this measure for the remaining estimated 204 affected MSW landfills (including those with gas collections systems already installed) is expected to result in an additional estimated emission reduction of 1.1 MMT of carbon dioxide equivalent in 2020. ARB is working with the California Department of Resources Recycling and Recovery to further refine the estimated emission reductions from the measure, and is considering recently published studies.

The Landfill Regulation allows the local air districts to voluntarily enter into a memorandum of understanding (MOU) with ARB to implement and enforce the regulation, and to assess fees to cover their costs. ARB developed the MOU template in consultation with representatives from the California Air Pollution Control Officers Association. Upon signing the MOU, primary enforcement authority is transferred to the local air district. ARB retains its right to enforce the Landfill Regulation, if necessary.

Having local air districts participate in the enforcement process capitalizes on their expertise (many of them regulate other types of emissions from the landfills), takes advantage of their physical location closer to the sources, and reduces the State's cost of implementing the Landfill Regulation. This collaboration is an example of a partnership between ARB and the local air districts, working together to achieve the goals of AB 32.

2. Recent Developments – July through December 2013

During 2013, ARB worked to increase enforcement activities with inspections, audits, and compliance assistance training. More information on ARB activities and any upcoming public meetings can be found at: http://www.arb.ca.gov/cc/landfills/landfills.htm.

- To date, 21 air districts have signed the MOU. ARB continues to work with the remaining local air districts to encourage their participation in the MOU.

- On September 4, 2013, ARB provided training to five local air districts that have signed the MOU to assist them in implementing and enforcing the Regulation. Other air districts expressed interest in training within their regions.

3. Upcoming Milestones – January through June 2014

- ARB plans to offer additional training sessions to interested local air districts, and to make available a modified version of this training to landfill owners and operators.

- For the first half of 2014, ARB will continue to focus its enforcement activities on landfills located in districts that have not signed an MOU because these landfills have a greater potential for elevated methane emissions.

- In 2014, through work on the Update to the AB 32 Scoping Plan, ARB will continue to coordinate with the California Department of Resources Recycling and Recovery on improving the quantification of emission reductions attributable to this Regulation. This process may help to identify additional opportunities for securing GHG reductions from the waste sector through regulations and/or incentives.

E. Other Regulations – Crude Oil and Natural Gas Production, Processing, and Storage

1. Background

The original Scoping Plan proposed the development of a measure to reduce venting and fugitive GHG emissions associated with oil and gas production, processing, and storage. These primarily methane emissions come from various sources, such as storage tanks, compressor seals, and leaking components such as valves, flanges, and connectors. In 2009, ARB undertook a survey of the industry to improve the emissions inventory for this sector. The survey results show that about 1.3 million metric tons of CO2e come from vented and fugitive sources in the oil and natural gas production, processing, and storage sector. Vented emissions are intentional, and fugitive emissions are unintentional, releases of gases to the atmosphere.

This effort was not originally envisioned with hydraulic fracturing, or fracking, in mind. However, with the recent passage of SB 4 (Pavley, Chapter 313) in 2013, ARB plans to expand its investigation to consider and reduce methane and air toxics emissions resulting from fracking activities. Pursuant to SB 4, ARB staff anticipates working with the local air pollution control and air quality management districts, as well as with the Department of Conservation's Division of Oil, Gas, and Geothermal Resources (DOGGR), and other relevant State agencies, to coordinate our efforts and maximize the effectiveness of measures to address fracking emissions.

2. Recent Developments – July through December 2013

- In order to begin understanding the air emissions coming from hydraulic fracturing and other well stimulation activities in California, ARB entered into a contract in August 2013 with a testing contractor to measure GHG, Volatile Organic Compound (VOC), and toxic air contaminant emissions from these activities at a very limited number of sites. ARB and the contractor have developed a draft test plan that identifies the type of emission points from which to sample, the sample collection techniques that will be used, and the type of analytical tests to be run. The draft test plan is being shared with stakeholders for their feedback, and when the test plan is finalized, the field measurements will begin.

- In October 2013, the Board considered amendments to the Mandatory Reporting of Greenhouse Gas Emissions Regulation, which included a test procedure for measuring "Flash Emissions of Greenhouse Gases and Other Compounds from Crude Oil and Natural Gas Separator and Tank Systems." This test procedure can be incorporated into the development and implementation of the Crude Oil and Natural Gas Production, Processing, and Storage regulation.

3. Upcoming Milestones – January through June 2014

- In mid-2014, ARB plans to begin holding public workshops as part of the regulatory development for the Crude Oil and Natural Gas Production, Processing, and Storage regulation. The initial workshops will discuss GHG emission estimates, preliminary regulatory concepts, and preliminary emission reductions. Subsequent workshops will discuss estimated cost-effectiveness of control approaches and draft regulatory language.

- In 2014, ARB staff, working in conjunction with the contractor, will begin the limited emissions testing from hydraulic fracturing and other well stimulation activities.

II. ARB ACTIVITIES TO SUPPORT AB 32

This section focuses on major AB 32 support activities identified in the supplemental budget language: the Update to the AB 32 Scoping Plan, coordination with entities outside California, implementation of SB 375 sustainable communities' plans, and the use of Cap-and-Trade auction proceeds. Also included is information on the development of the Sustainable Freight Strategy, which will drive further actions to provide significant benefits for climate, regional air quality and localized health risk reduction.

A. Scoping Plan

1. Background

AB 32 requires ARB to take the lead, in close coordination with other State agencies, to prepare and adopt a Scoping Plan that describes how the State will reduce GHG emissions to 1990 levels by 2020. The Scoping Plan was first approved by the Board in December 2008, and contained a range of GHG emission reduction actions that could be taken. These actions include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms such as a cap-and-trade program, and an AB 32 program implementation fee to fund the program.

AB 32 requires that the Scoping Plan be updated every five years. ARB began efforts to update the Scoping Plan in 2012. The development of the first Update to the Scoping Plan (Update) involves extensive ARB staff work within three spheres – analysis internal to ARB, coordination with other State agencies, and consultation with other stakeholders in government, industry, community/environmental groups, and academia. The breadth of the effort requires significant ARB staff resources, drawing from staff and management who deal with issue areas such as: climate policy and regulation, energy, industrial sources, vehicles, freight transport, fuels, waste, water, agriculture, natural resources, research, emissions, economics, environmental analysis, federal planning, sustainable communities, and incentives.

Under the auspices of the Climate Action Team, led by Secretary for Environmental Protection Matthew Rodriquez, ARB and other State agencies collaborated to identify and explore opportunities for securing additional reductions of GHGs and short-lived climate pollutants in six focus areas:

- Transportation (including fuels, land use, and associated infrastructure)
- Energy
- Waste
- Water
- Agriculture
- Natural and Working Lands

ARB reconvened the Environmental Justice Advisory Committee (EJAC) to advise ARB in the development of the Update. AB 32 directed ARB to convene an EJAC of at least three members by July 1, 2007, to advise ARB in developing the initial Scoping Plan and any other pertinent matter in implementing the bill. ARB first convened an EJAC in January 2007, to provide advice on the development of the initial Scoping Plan.

The Update summarizes the scientific advancements concerning the understanding of climate change and its impacts. It also highlights California's accomplishments to date (including State, regional and local climate initiatives) to reduce GHG emissions. The Update quantifies progress toward meeting the 2020 GHG emissions goal, examines the economic impacts of actions taken to support that goal, identifies opportunities to pursue additional measures as appropriate (such as uncovered sectors and short-lived climate pollutants), and lays the foundation for the research and policy work needed to map the path to post-2020 climate goals.

2. Recent Developments – July through December 2013

Following an initial general public workshop and a Southern California Regional Workshop in June of 2013, ARB held two further public meetings on the Update in collaboration with local air districts.

- On July 18, ARB and the San Joaquin Valley Air Pollution Control District hosted a regional workshop that focused on the connection between public health and climate change, such as reducing co-pollutants.

- On July 30, ARB and the Bay Area Air Quality Management District, hosted a Bay Area regional workshop that focused on climate.

- On August 5 and 6, the EJAC met to develop initial recommendations to help inform the Discussion Draft of the Update.

- On October 1, ARB released a Discussion Draft of the Update for public review and comment. The initial recommendations of the EJAC are included as an appendix.

- On October 15, the EJAC met to revise its initial recommendations based on the Discussion Draft.

- ARB presented the Discussion Draft at the October 24 Board Meeting. Representatives of industry, environmental groups, and other government agencies, members of the public, and Board members provided comments on the Discussion Draft.

- In late 2013, the California Air Pollution Control Officers' Association provided an expansive summary of local and regional actions to reduce GHG emissions in response to ARB's request. This summary will be included with the next version of the Update.

3. Upcoming Milestones – January through June 2014

Staff will continue to work with stakeholders and the EJAC on development of the Update. ARB staff will revise the document based on input received.

- In early 2014, ARB will release a proposed Scoping Plan Update, along with an Environmental Assessment document, for a formal 45-day public comment period. The Board will consider this Update at its February 20-21, 2014 public meeting.

- When the 45-day comment period for the Environmental Assessment closes, staff will respond in writing to written environmental comments submitted on the Environmental Assessment, and release a final Scoping Plan Update package to be presented to the Board for approval in Spring 2014.

- Upon Board approval of the Scoping Plan Update, ARB staff will begin to work with the Governor's Office, the Legislature, other government agencies, and the public to implement the recommendations contained in the Update.

More information on ARB activities and upcoming public meetings on the Scoping Plan can be found at: http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm.

B. Coordination with Other Entities Outside of California

AB 32 requires ARB to "consult with other states, the federal government, and other nations to identify the most effective strategies and methods to reduce greenhouse gases, manage greenhouse gas control programs, and to facilitate the development of integrated and cost-effective regional, national, and international greenhouse gas reduction programs." Pursuant to this requirement, and in the spirit of expanding international action to address global climate change, ARB engages with interested jurisdictions outside of California.

ARB works closely with other entities at the local, state, regional, national, and international levels to ensure that the rigorous standards established by California are understood and potentially implemented by other jurisdictions. Where other states and nations are developing or implementing their own GHG reduction programs, ARB looks to coordinate with committed partners to expand action to tackle global climate change by sharing California's programs, policies and best practices so that their program designs complement California's efforts and benefit the state to the maximum extent feasible.

One focus of ARB's efforts has been with partner jurisdictions in the Western Climate Initiative (WCI), to build an integrated, regional carbon market and expand cost-effective emission reduction opportunities. These efforts have included developing the administrative support activities managed by the Western Climate Initiative, Inc. (WCI, Inc.).

ARB has worked with Québec to link cap and trade programs. Pursuant to Senate Bill 1018 (Committee on Budget and Fiscal Review, Chapter 39, Statutes of 2012), ARB sent a letter to Governor Brown on February 22, 2013 requesting that he make specific findings showing that Québec's program is "equivalent to or stricter than" California's program, that California would be able to enforce its laws to Constitutional limits, and that linking with Québec would impose no "significant liability" on California. On March 5, 2013, the Office of the Attorney General sent an advice letter to the Governor's Office regarding these findings. On April 8, 2013, after considering the advice letter, Governor Brown responded with a letter to ARB finding that the requirements of SB 1018 have been satisfied and requesting that ARB provide a report to the Governor and Secretary of CalEPA by November 1, 2013. On October 1, 2013, ARB and the Government of Québec announced an agreement to link cap and trade programs, and on November 1, 2013, ARB submitted a Linkage Readiness Report to the Governor and Secretary of CalEPA, per the Governor's request. California and Québec are scheduled to link cap and trade programs on January 1, 2014.

Governor Brown, ARB and other agencies have also been working with several entities in China to advance their efforts to reduce GHG emissions and combat air pollution. China is the world's leading emitter of GHG emissions and critical to addressing global climate change. Similarly, many cities in China are suffering from hazardous air pollution, some of which drifts across the ocean to California. Sharing California's leading expertise on reducing air pollution can provide mutual benefits to China, California and global climate. Accordingly, California and China entered into a number of agreements in 2013, including one in late 2013 that is the focus of this report (please see July 2013 report for actions taken in early 2013).

- On September 13, 2013 Governor Brown signed a MOU with the top climate official in China, Vice Chairman Xie Zhenhua of the National Development and Reform Commission, to enhance cooperation on low carbon development, including mitigating carbon emissions, strengthening performance standards to control GHG emissions, and designing and implementing carbon emissions trading systems. The agreement is the first between the National Development and Reform Commission and a subnational entity. More information can be found at: http://gov.ca.gov/news.php?id=18205.

California has advanced several other strategic national and international partnerships in the latter half of 2013.

- On July 30, 2013, Mary Nichols, Chairman of ARB, signed an agreement with Chloe Munro, Chair of the Clean Energy Regulator in Australia, to advance cooperation on mutual efforts to address global climate change, including carbon emissions trading programs. Under the agreement, the Clean Energy Regulator and ARB agreed to share information to develop complementary and effective market-based programs to reduce greenhouse gas emissions, and support and build on the capacity of the international carbon market.

- On October 24, 2013, Governor Brown signed an agreement with the Governors of seven other states – Governor Dannel P. Malloy of Connecticut, Governor Martin O'Malley of Maryland, Governor Deval Patrick of Massachusetts, Governor Andrew M. Cuomo of New York, Governor John Kitzhaber of Oregon, Governor Lincoln D. Chafee of Rhode Island and Governor Peter Shumlin of Vermont – to individually take specific actions to build markets for zero emission vehicles and put at least 3.3 million zero emission vehicles on the roads in the eight states by 2025. While each state is free to determine the best way to achieve this goal, the agreement is important to accelerate momentum for ZEV markets by fostering more consistent policies across the states, such as ZEV-oriented infrastructure standards and High Occupancy Vehicle (HOV) lane access.

- On October 28, 2013, Governor Brown signed the Pacific Coast Action Plan on Climate and Energy with Governor John Kitzhaber of Oregon, Governor Jay Inslee of Washington, and Premier Christy Clark of British Columbia. Among other activities, the agreement commits each jurisdiction to reduce GHG emissions by putting price on carbon, transforming markets for energy efficiency, and adopting low carbon fuel standards. The Pacific Coast Action Plan allows each jurisdiction to determine how best to achieve GHG emission reductions and does not create any obligations between any of the programs.

Each of these agreements supports California's policies and will help to build markets for clean technologies and expand the benefit of California's leading air quality and climate programs – both within and outside of California. Further, these agreements are not binding and create no obligation on the part of ARB or the State.

1. Western Climate Initiative (WCI)

The WCI is a collaboration of independent jurisdictions working together to identify, evaluate, and implement policies to tackle climate change at a regional level. WCI was originally established by five states and grew to eleven states and provinces including: Washington, Oregon, Montana, Utah, New Mexico, Arizona, California, British Columbia, Ontario, Manitoba, and Québec. California participated in the WCI as part of the effort to carry out the requirements of AB 32. Five jurisdictions are currently active in WCI: California, British Columbia, Manitoba, Ontario, and Québec.

Following extensive consultation with stakeholders, the WCI jurisdictions released comprehensive recommendations for designing and implementing an emissions trading program. As a result of California's coordination efforts, the WCI recommendations are consistent with the design of the ARB Cap-and-Trade Program. This consistency will help facilitate opportunities for linking California's Program with other jurisdictions in the future.

Further information on the activities of WCI can be found at: www.westernclimateinitiative.org.

2. Western Climate Initiative, Inc.

Throughout the WCI collaboration, the WCI jurisdictions discussed the concept of having regionally coordinated administrative support for the jurisdictions' emissions trading programs. In November 2011, WCI, Inc. was created to fulfill this administrative role.

WCI, Inc. is a non-profit corporation that focuses solely on administrative support, and is separate from WCI. WCI, Inc. coordinates administrative services to cap-and-trade programs developed and implemented by states and provinces. The Board of Directors for WCI, Inc. includes officials from the provinces of Québec and British Columbia, and the State of California. The services provided by WCI, Inc. can be expanded to support jurisdictions that join in the future.

The coordinated administrative support from WCI, Inc. benefits California and the other programs.

- Coordinated support ensures that all the linked programs use the same highly secure program infrastructure, including the allowance tracking system and auction platform.

- Coordinated support ensures that analyses performed to support market monitoring in each jurisdiction is conducted consistently and effectively for the entire compliance instrument market across all the linked programs.

- Coordinated support enables the linked programs to share the cost of developing and maintaining program infrastructure, thereby reducing the costs for each jurisdiction.

WCI, Inc.'s approach to coordinating administrative support is to have each jurisdiction specify its administrative requirements, and then for WCI, Inc. to provide support that meets these specifications. Currently, British Columbia, California, and Québec participate in WCI, Inc. California and Québec are currently implementing cap-and-trade programs to reduce GHG emissions.

Most of the administrative support provided by WCI, Inc. is highly technical or specialized and has been developed through the use of contractors. WCI, Inc. is:

- Coordinating the development and administration of the Cap-and-Trade Compliance Instrument Tracking System Service (CITSS);

- Coordinating the development and administration of an allowance auction platform. The auction platform is used by California and Québec to auction emission allowances under their cap-and-trade programs and conduct reserve sales;

- Coordinating the performance of analyses to support market monitoring performed by each jurisdiction of allowance auctions and allowance and offset certificate trading; and

- Coordinating auction and reserve sale financial administration, which includes evaluation of bid guarantees and settlement (transferring the payments from the auction and reserve sale purchasers to the sellers).

Whereas WCI has focused on collaboration on emissions trading policies, WCI, Inc. is solely administrative in nature. All policymaking and regulatory authority for each jurisdiction's program is retained by each jurisdiction. According to the WCI, Inc. bylaws, its administrative activities must "…conform to the requirements of State and Provincial programs…" The requirements are defined by the participating jurisdictions, such that WCI, Inc. must execute its administrative role in conformance with the requirements established by ARB and the other jurisdictions.

Section 4 of this report provides the semi-annual update to the Legislature on the activities of WCI, Inc. Please see this section for further information.

3. Other Federal and State Governments

ARB coordinates with entities at the state, federal, and international level that have or are developing program elements similar to California's to ensure that important provisions are as consistent as possible, where appropriate. This coordination ensures that the State's and stakeholders' investment in developing California regulations facilitates future broadening of policies to other jurisdictions and strengthens California's ability to compete globally.

ARB works closely with federal agencies including: U.S. EPA, the U.S. Department of State, the U.S. Agency for International Development, the Commodity Futures Trading Commission, and the Federal Energy Regulatory Commission on climate change issues.

The Mandatory Reporting Regulation for GHG emissions is modeled on, and periodically updated to maintain consistency with, U.S. EPA's GHG reporting rule. In 2013, ARB continued to work with U.S. EPA on further consolidating reporting systems to both reduce regulatory burden on reporting entities and increase data accuracy and integrity. The CITSS compliance system for California's Cap-and-Trade Regulation was built in cooperation with U.S. EPA on the framework used in other cap-and-trade systems, including the federal Acid Rain Program and the Northeast states' Regional Greenhouse Gas Initiative. The industrial emissions benchmarking methodology used in California's Cap-and-Trade Program was developed in coordination with partners in other U.S. states, Canadian provinces, and the European Union. In 2013, ARB continued coordinating with the Commodity Futures Trading Commission and Federal Energy Regulatory Commission to strengthen carbon and related energy market monitoring, oversight, and enforcement.

In his June 2013 memorandum, President Obama called on U.S. EPA to build on the leadership that many states, cities, and companies have already shown in reducing carbon pollution from the power sector as U.S. EPA develops its own GHG emission standards under section 111(d) of the Clean Air Act. U.S. EPA subsequently asked states to provide feedback on specific issues, including state experiences with carbon pollution reduction programs. In December, ARB, along with CPUC, CEC, CAISO, and air districts, provided recommendations to U.S. EPA on the most effective strategies for achieving GHG reductions in the electric sector. The California agencies encouraged U.S. EPA to establish an approach that is rigorous and equitable, achieves significant carbon pollution reductions, and utilizes the flexibilities inherent in the power grid to support cost-effective compliance. The agencies also encouraged U.S. EPA to establish a standard that recognizes the significant progress made by many states, including California, and provides states with the authority to reach emissions targets through a variety of compliance options.

U.S. EPA and ARB routinely coordinate on advanced transportation and fuels, including the relationship between the federal Renewable Fuels Standard and the California Low Carbon Fuel Standard. ARB's work with U.S. EPA and its federal partners was instrumental to the success of the Advanced Clean Cars Program.

ARB has also been working with other states and provincial governments on low carbon fuels issues to share insights gained from developing and implementing California's LCFS. To facilitate the use of consistent methodologies, staff continues to work closely with Oregon and British Columbia on ARB's web-based LCFS Reporting Tool. Regulated parties use the Reporting Tool to report the volumes and carbon intensities of the transportation fuels that they have introduced into the California fuels market; therefore, it is used for both reporting and compliance purposes. ARB signed software License Agreements in 2013 with both jurisdictions, which enabled Oregon and British Columbia to begin using the LCFS Reporting Tool for data collection in their jurisdictions. Work continues with these governments regarding the technical details of making elements of the Reporting Tool available, including security, program maintenance, and update capabilities.

ARB has also been engaging in discussions with other governmental agencies outside of California to share information and experiences about the design of programs aimed at reducing emissions from deforestation and forest degradation (REDD), and to begin evaluating whether and how such REDD programs could potentially be included in California's Cap-and-Trade Regulation in the future. ARB does not currently accept any offset credits from outside of the United States, and any future inclusion would require new rulemaking.

C. SB 375 – Sustainable Communities Plans

1. Background

SB 375 (Steinberg, Chapter 728, Statutes of 2008), also known as the Sustainable Communities and Climate Protection Act, reduces GHG emissions from passenger vehicles through improved regional transportation and land use planning. SB 375 directs regions to integrate development patterns and transportation networks in a way that achieves passenger vehicle GHG reductions while addressing housing needs and other regional planning objectives.

ARB is required to set regional GHG emission reduction targets for passenger vehicles for 2020 and 2035 for the State's federally designated Metropolitan Planning Organizations (MPO). Each MPO is then required to adopt and submit to ARB a sustainable communities strategy (SCS) that uses land use and transportation strategies to reduce the region's passenger vehicle GHG emissions. ARB's statutory responsibility under SB 375 is to then accept or reject an MPO's determination that its SCS would, if implemented, meet the targets. An MPO must develop an alternative planning strategy if its SCS fails to meet ARB targets.

In 2010, ARB set the regional GHG emissions reduction targets required under SB 375. In the four most heavily populated regions of the State, the Board-approved targets (See Table 1-1) are expected to achieve per capita GHG emission reductions of seven to eight percent by 2020, and between 13 and 16 percent in 2035, compared to 2005 levels. Achieving these targets means statewide GHG reductions of over 3 MMT in 2020 and 15 MMT in 2035. The regions include Southern California, the Bay Area, San Diego, and the Sacramento Metropolitan Area.

Under the law, ARB has specific statutory responsibility to determine whether the SCS, if implemented, would achieve the GHG emission targets. In July 2011, ARB staff released to the public a methodology that details how ARB will evaluate MPO SCSs in order to fulfill its responsibility under the law. ARB's methodology can be found at http://www.arb.ca.gov/cc/sb375/scs_review_methodology.pdf.

Table 1-1: ARB Greenhouse Gas Emission Reduction Targets for Major Regions under SB 375

Metropolitan Planning Organization (MPO) Region	Targets *	
	2020	2035
Southern California Association of Governments (SCAG)	-8	-13
Metropolitan Transportation Commission (MTC)	-7	-15
San Diego Association of Governments (SANDAG)	-7	-13
Sacramento Area Council of Governments (SACOG)	-7	-16
8 San Joaquin Valley Councils of Governments	-5	-10
Tahoe Metropolitan Planning Organization	-7	-5
Shasta Regional Transportation Agency	0	0
Butte County Association of Governments	+1	+1
San Luis Obispo Council of Governments	-8	-8
Santa Barbara County Association of Governments	0	0
Association of Monterey Bay Area Governments	0	-5

* Targets are expressed as percent change in per capita GHG emissions relative to 2005.

Of the major MPOs, San Diego's SCS was adopted by the San Diego Association of Governments in October 2011, followed by the Southern California Association of Governments' and the Sacramento Area Council of Governments' plans in 2012. Staff presented status updates to the Board in 2012 on the development of these plans. Based on staff's evaluation, ARB's Executive Officer accepted these three SCSs through Executive Orders on behalf of the Board. In December 2012, the Tahoe and Butte MPOs adopted their respective plans and in April 2013 staff presented its evaluations of those SCSs to the Board. The Board approved resolutions accepting those regions' SCSs.

2. Recent Developments – July through December 2013

The remaining MPOs are now in the process of developing and adopting their SCSs as part of their next Regional Transportation Plan updates. In November 2013, ARB staff presented to the Board its evaluation of the Santa Barbara SCS, which the Santa

Barbara MPO adopted in August 2013. In December 2013, staff began wrapping up its evaluation of the recently adopted Bay Area's SCS.

Sustainable Communities Contracts. ARB is providing funding for several research efforts that are contributing critical data and information that will help strengthen the technical foundation of SB 375 and identify important data gaps and research needs. One set of contracts with University of California researchers is focused on identifying the impacts of key transportation and land use policies on vehicle use and GHG emissions based on the existing scientific literature. The results of the first literature review on these issues may be found on ARB's website at http://arb.ca.gov/cc/sb375/policies/policies.htm. A second contract is underway, which will expand on the findings of the first and explore additional policy areas.

Another set of contracts is focused on the modeling tools used by regional governments to quantify the impacts of different land use and transportation strategies on regional travel characteristics. A contract with Smart Mobility, Inc. is currently underway and will provide a comprehensive review of various state-of-the-practice activity-based and land use models that are either currently in use or under development in California.

In addition, ARB is providing funding for several research projects on land use and transportation planning, including: the economic benefits and costs of smart growth strategies, effects of complete streets on travel behavior, quantifying the effects of local government action on vehicle miles travelled, the role of land use planning in reducing residential energy consumption and GHG emissions, and modeling household vehicle and transportation choice and usage. More details on these research projects as well as information on completed and future research may be found on ARB's website at: http://www.arb.ca.gov/research/sustainable/landuse.htm.

3. Upcoming Milestones – January through June 2014

As each additional MPO adopts a SCS, ARB staff will evaluate the plan to determine whether the SCS, if implemented, would achieve the GHG emission targets. ARB will periodically report to the Board on these actions. More information on staff's activities and upcoming meetings can be found at: http://www.arb.ca.gov/cc/sb375/sb375.htm.

- In January 2014, staff will brief the Board on the status of SB 375 implementation, including an update on SCSs adopted to date, the status of SCSs under development, and next steps in implementation.

- Based on the current schedule, most of the San Joaquin Valley region's MPOs are scheduled to adopt their SCSs in June 2014.

- As described in ARB's 2013-14 Annual Research Plan, ARB will begin a research project to examine the relationship between transit-oriented development and displacement of existing low-income residents. The potential for displacement is a key concern raised by the EJAC. The project will partner with MPOs to advance their modeling efforts to assess the potential for displacement and potential solutions.

D. Cap-and-Trade Auction Proceeds

1. Background

A portion of the allowances required for compliance with the Cap-and-Trade Regulation are sold at quarterly auctions and reserve sales. The auctioned allowances are a mix of State-owned allowances and allowances consigned to auction by electric utilities. The Legislature and Governor will approve the expenditure of the State's portion of these auction proceeds (which does not include the proceeds from allowances consigned to auction by the utilities) to invest in projects that support the goals of AB 32. Strategic investment of proceeds will further AB 32 implementation, including support of long-term, transformative efforts to improve public and environmental health and develop a clean energy economy.

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 established the GHG Reduction Fund to receive the State's portion of the auction proceeds and provided the framework for how those auction proceeds will be allocated. This legislation established the broad categories of GHG emission-reducing projects that may be funded, including investments in:

- Clean and efficient energy;
- Low-carbon transportation;
- Natural resource conservation and management and solid waste diversion; and,
- Sustainable infrastructure and strategic planning.

In addition to reducing GHG emissions in California, the implementing legislation established the following goals for this funding, where applicable and feasible:

- Maximize economic, environmental, and public health benefits;
- Create jobs;
- Complement efforts to improve air quality;
- Invest in projects that benefit disadvantaged communities;
- Provide opportunities for businesses, public agencies, nonprofits, and others to participate in efforts to reduce GHG emissions; and,
- Lessen the impacts and effects of climate change.

At least 25 percent of program funding is to be directed to projects that provide benefits to disadvantaged communities and at least ten percent of program funding must be spent on projects located in disadvantaged communities. CalEPA is required to identify these communities for investment purposes.[8]

AB 1532 established a two-step process for allocating proceeds from the sale of State-owned allowances. The two-step process involves developing an investment plan and then appropriating the funds through the annual Budget Act, in accordance with that investment plan.

1. *Three-Year Investment Plan*: Finance, in consultation with ARB and other State agencies, developed and submitted to the Legislature the first three-year Cap-and-Trade Auction Proceeds Investment Plan (Investment Plan)[9] identifying priority programs for investment of proceeds to support achievement of the State's GHG emission reduction goals.

2. *Annual Budget Appropriations:* Funding is appropriated by the Legislature and Governor through the annual Budget Act, consistent with the Investment Plan.

For allowances allocated to utilities, the Cap-and-Trade Regulation requires that utilities use their allocation exclusively for the benefit of their retail ratepayers (e.g., residential or commercial ratepayers) as consistent with the goals of AB 32. This requirement applies to both allocated allowances, and to any proceeds generated from the sale or auctioning of any allocated allowances. The CPUC decision D1212033 (passed pursuant to SB 1018) further directed the investor-owned utilities (IOUs) to return the proceeds generated from the sale of their allocated allowances. The decision directed IOU revenues to be distributed in the following order: (1) compensation to emissions-intensive and trade-exposed entities, (2) adjustments in the electricity rates of small businesses, (3) volumetrically calculated rate adjustments on residential electricity rates, and (4) a semi-annual, on-bill credit of all revenues to residential customers on an equal per residential account basis after accounting for the revenues allocated pursuant to the prior three uses.

2. Recent Developments – July through December 2013

For FY 2013-14, the Budget Act authorized a one-time loan of $500 million of FY 2012-13 and 2013-14 monies from the GHG Reduction Fund to the General Fund. The loan is filling a short-term need and the monies are expected to be repaid with interest. In preparation of loan repayment and future appropriations, ARB and CalEPA activities in the second half of 2013 included:

- Fiscal Administration: SB 1018 established ARB as the fiscal manager of the GHG Reduction Fund. In this role, ARB is required to reconcile deposited funds, track and

[8] CalEPA and the Office of Environmental Health Hazard Assessment identify disadvantaged communities based on a tool called the California Communities Environmental Health Screening Tool (CalEnviroScreen). For more information on CalEnviroScreen: http://oehha.ca.gov/ej/ces042313.html
[9] The first three year Cap-and-Trade Auction Proceeds Investment Plan can be found here: http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/auctionproceeds.htm

account for proceeds appropriated to State agencies, and provide reporting on Fund activity. ARB anticipates additional requested resources to support developing and implementing fiscal administration procedures to meet these needs.

- Expenditure Plan Recommendations: In Fall 2013, Finance, CalEPA, and ARB worked with the State's environmental, transportation, and natural resources agencies, and met with numerous stakeholder coalitions, to identify existing State initiatives contained within the three-year Investment Plan ready to receive FY 2014-15 auction proceeds and invest in GHG emission reduction projects.

- Utility Auction Proceeds: For the auctions held through the end of 2013, the IOUs have received a total of $776,142,780 from the sale of allocated allowances and publicly-owned utilities have received a total of $60,186,703 from the sale of allocated allowances.

3. Upcoming Milestones – January through June 2014

- The Governor's January 2014 Proposed State Budget for FY 2014-15 includes a proposed appropriation of Cap-and-Trade auction proceeds to several state agencies.

- The next two Cap-and-Trade auctions for FY 2013-2014 are tentatively scheduled to take place on February 19, 2014 and May 16, 2014.

- Utilities will provide a credit to ratepayers on utility bills as part of implementing the PUC decision and SB 1018 in Spring 2014.

4. Greenhouse Gas Reduction Fund

The GHG Reduction Fund was created via SB 1018 as a special fund in the State Treasury. ARB is responsible for the fiscal management of the Fund, with expenditures authorized by the Legislature and the Governor through the State Budget. Table 1-2 shows the proceeds deposited from the auctions (from the sale of State-owned allowances).

Table 1-2: Proceeds from the Sale of State-Owned Allowances Deposited in the Greenhouse Gas Reduction Fund (as of December 14, 2013)	
November 2012 Cap-and-Trade auction 1	$55,760,000
February 2013 Cap-and-Trade auction 2	$83,923,548
May 2013 Cap-and-Trade auction 3	$117,580,484
August 2013 Cap-and-Trade auction 4	$138,494,503
November 2013 Cap-and-Trade auction 5	$136,799,446
State auction proceeds total	**$532,557,981**

E. Sustainable Freight Strategy

1. Background

The trucks, locomotives, ships, harbor craft, aircraft, cargo handling equipment, and transport refrigeration units that carry and move freight in California are significant sources of air pollution. Freight transport equipment and associated facilities like ports, railyards, airports, freeways, distribution centers, and border crossings contribute over ten percent (and growing) of the GHG emissions in the State, as well as a significant portion of the black carbon emissions that also contribute to climate change. The diesel engines that power these freight sources are responsible for about two-thirds of the diesel soot that increases the health risk in nearby communities, and nearly half of all nitrogen oxide emissions that form regional ozone and fine particles in California.

ARB has adopted a series of regulations to reduce the diesel pollution and health risk near freight facilities over the last decade. U.S. EPA and other federal agencies have promulgated national emission standards and supported international agreements for cleaner ships, ship fuels, and aircraft. The State's largest ports have developed their own plans to cut air pollution. The railroads have implemented voluntary emission reduction agreements to bring the cleanest locomotives to California. Businesses and government have made substantial investments in lower-emission technology and fuels. The combined impact is dramatic – a 40-70 and 70-80 percent reduction in diesel soot from California's highest risk railyards and largest ports, respectively, since 2005.

Despite this progress, California will need to transform the freight transport system to further reduce the localized health risk around freight facilities, meet State and federal air quality standards, and achieve the long-term climate goals. The cancer risk to residents living near major freight hubs will remain elevated without further action. In 2016, ARB will be submitting an Ozone SIP[10] to the U.S. EPA as required by the Clean Air Act in response to the recent tightening of the health-based air quality standard for ozone. ARB's 2012 *Vision for Clean Air: A Framework for Air Quality and Climate Planning* showed that meeting ozone health-based standards and climate goals will require similar transformative emission reduction strategies. The success of the SIP will depend on a successful transition of the current California freight system to one with zero or near-zero emissions over the long-term. In addition, the initial Scoping Plan included a measure for more efficient freight transport to cut GHG emissions.

In 2012, ARB formed the Sustainable Freight Section, which is responsible for coordinating the effort to develop a sustainable freight strategy for California. Outreach began with freight industry representatives; local, State and federal government agencies; and community and environmental advocates to discuss the need for transformation and to seek input on a collaborative process. The California Department

[10] Federal clean air laws require areas with unhealthy levels of criteria air pollutants (e.g., ozone and inhalable particulate matter) to develop State Implementation Plans (SIPs). SIPs are comprehensive plans that describe how an area will attain national ambient air quality standards (NAAQS). The 1990 Amendments to the federal Clean Air Act set deadlines for attainment based on the severity of an area's air pollution problem.

of Transportation began complementary activities, with a focus on infrastructure, to support development of a Freight Mobility Plan and meet new federal directives for freight planning. The Southern California Association of Governments adopted a 2012 Regional Transportation Plan that reflects many of the objectives and near-term steps to support a zero/near-zero emission freight system. ARB is pursuing opportunities to coordinate or integrate these efforts.

2. Recent Developments – July through December 2013

A broad coalition of interests is needed to develop a California vision for a sustainable freight transport system, define the system changes (logistics, infrastructure, equipment) needed to implement the vision, secure support and public/private funding, and build/deploy the system. This approach offers the potential to meet the State's air quality, energy, and economic needs for a clean freight system that aligns with and supports a competitive logistics industry and the associated jobs.

ARB activities in the second half of 2013 include:

- Participation in the development of the California Freight Mobility Plan through the California Freight Advisory Committee and the California Transportation Plan 2040 through the Policy and Technical Advisory Panel.

- Continued meetings with a coalition of environmental and community advocates, as well as freight industry representatives, to scope out the approach and elements of a Sustainable Freight Strategy.

- Funding of zero- and near-zero emission freight technologies through ARB's AB 118 Air Quality Improvement program:
  - In June 2013, ARB granted $1 million in funding to the Port of Los Angeles for the demonstration of battery-electric, zero-emission yard tractors.
  - At its July 2013 meeting, the Board approved $5 million in funding for the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project. Senate Bill 359 (Corbett, Chapter 415, Statutes of 2013) provided an additional $10 million in funding for these vouchers.

- Initiation of a contract with the University of Illinois to evaluate the operational and economic impacts of approaches to achieve zero-emission rail miles.

3. Upcoming Milestones – January through June 2014

Staff will continue the collaborative effort to develop a sustainable freight strategy. This activity will be reflected in the Update to the Scoping Plan, as well as subsequent SIP revisions.

- On January 23, 2014, ARB staff will seek Board input on concepts for the Sustainable Freight Strategy document and public process.

- In the first half of 2014, ARB staff and air/transportation agency partners will meet with focus groups representing community health and environmental interests, cargo owners, cargo carriers (shipping, rail, trucking, air freight), ports, equipment/vehicle manufacturers, electric and gas utilities, economic/business leaders and others to define the needs and elements of a freight strategy. Staff will develop and release preliminary concepts for discussion at public workshops and community meetings.

III. GREENHOUSE GAS EMISSIONS AND REDUCTIONS

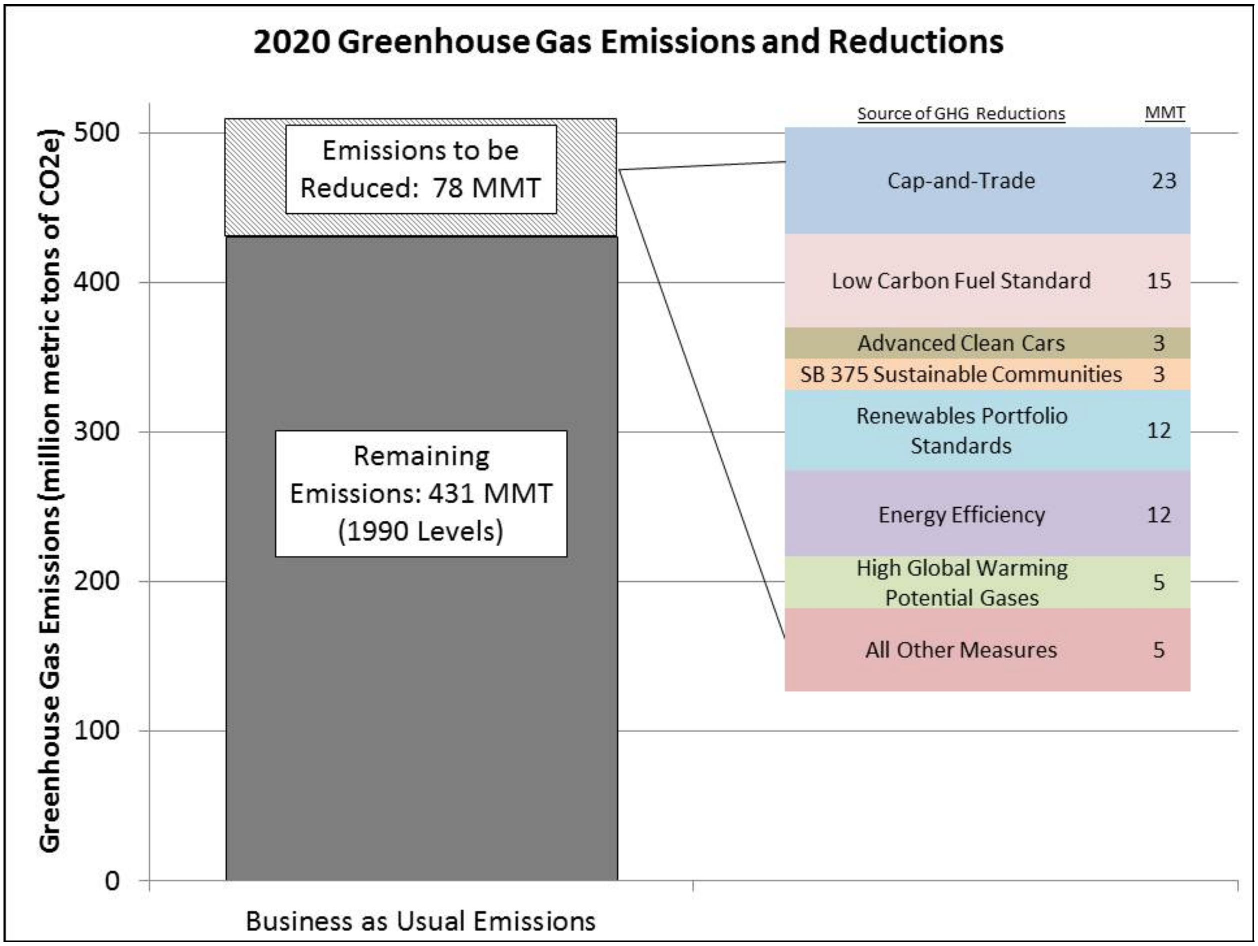
ARB periodically updates its estimates of GHG emissions in California, which change as the science advances, growth forecasts are revised, and California makes progress in reducing emissions. Since the last AB 32 report to the Joint Legislative Budget Committee, ARB has begun using a more recent international scientific assessment of the global warming potential (GWP) of greenhouse gases developed by the Intergovernmental Panel on Climate Change (IPCC), which includes updated GWP values for GHGs.[11] ARB expresses the emissions of multiple GHGs in terms of carbon dioxide equivalent (of CO2e), which means that changes to the global warming potential of each gas relative to carbon dioxide results in adjusted statewide GHG emissions.

ARB currently estimates that GHG emissions in 2020 would be 509 million metric tons (MMT) of CO2e in a "business as usual" case without the State's actions to reduce GHGs. The AB 32 target is to return to 1990 emission levels by 2020, which ARB has identified as 431 MMT of CO2e (see Figure 1).

To meet the target, the climate program must cut 78 MMT of CO2e by 2020. California is on track to achieve this AB 32 goal. Figure 1 shows the regulations and programs contributing to this progress. Please note that the reductions shown are for 2020; programs like Advanced Clean Cars and SB 375 Sustainable Communities Strategies will generate increasingly greater reductions in later years.

[11] The initial Scoping Plan relied on the IPCC's 1996 Second Assessment Report to assign the GWPs of greenhouse gases. Recently, in accordance the United Nations Framework Convention on Climate Change, international climate agencies have agreed to begin using the GWP values in the IPCC's Fourth Assessment Report that was released in 2007. These more recent GWP values incorporate the latest available science and are therefore regarded as more accurate than the prior values.

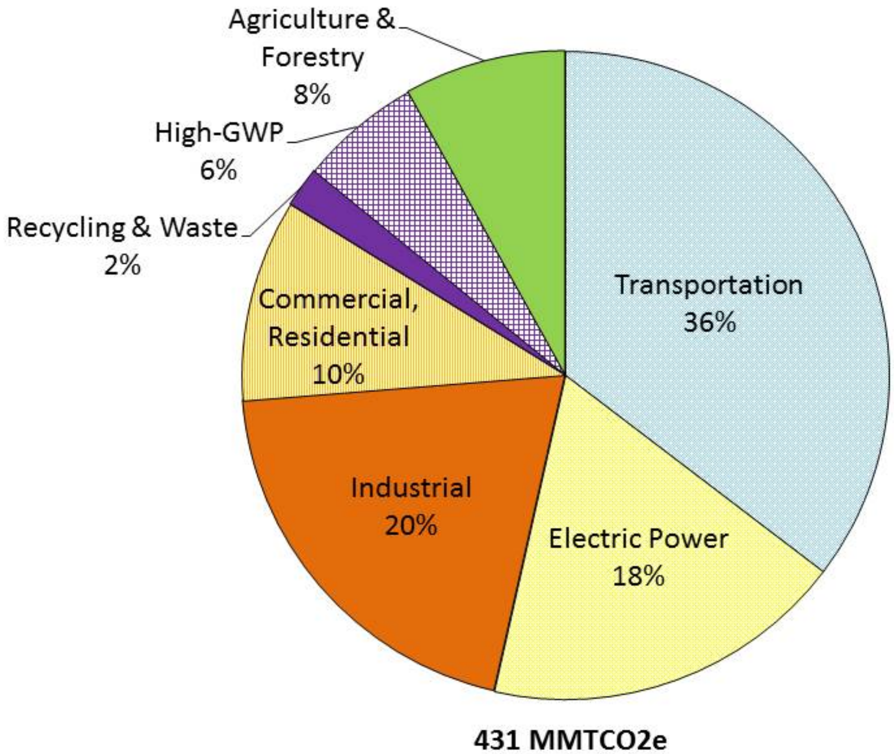
Figure 1



The transportation sector is the largest source of GHG emissions and the largest contributor to the reductions achieved through the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, the Advanced Clean Cars Regulations, and the SB 375 Sustainable Communities' Strategies. Cleaner, more efficient energy is a vital part of the solution, through requirements for generation of electricity by renewable sources and improved efficiency at industrial operations, businesses, homes and government facilities. Regulations that limit emissions of high GWP gases, like sulfur hexafluoride, also contribute significant benefits.

Figure 2 shows how the 2020 emissions are likely to be spread across the sectors after compliance with the AB 32 target. The Scoping Plan Update focuses on key areas with potential for further emission reductions after 2020. These include transportation, energy, waste, water, agriculture, forestry and natural and working lands.

Figure 2
2020 Greenhouse Gas Emissions By Sector
With Adopted Regulations and Programs



ARB regulations and programs providing the greatest GHG reductions align with where ARB is putting its resources (funded primarily by the AB 32 Cost of Implementation Fee). The Cap-and-Trade and the LCFS Programs are the two single largest contributors to meeting the 2020 emission reduction target. These two programs continue to account for over half of ARB's climate resources in FY 2012-13 and FY 2013-14.

SECTION 2:

ANNUAL AB 32 FISCAL REPORT

(Fiscal Year 2012-13: July 2012-June 2013)

This report is required annually by the Supplemental Report of the 2012-13 Budget[12] to quantify the major revenues and expenses for ARB to implement the AB 32 program for the prior fiscal year. This report focuses on Fiscal Year (FY) 2012-13. The report format follows the Budget language, from funding received (Cost of Implementation Fee and Cap-and-Trade auction proceeds), followed by ARB expenses for the AB 32 program as a whole and breakdowns by specified major program areas, the total Cap-and-Trade allowance auction funds, and concluding with the activities of the Emissions Market Assessment Committee.

I. FY 2012-13 FUNDS RECEIVED AND EXPENDED

This element of the report covers the FY 2012-13 funds received related to AB 32 implementation, as well as the FY 2012-13 funds expended by ARB to support activities that provide climate benefits.

<u>Structure and Funding for Regulatory Activities</u>. The resources estimated in this section of the report are those used to support all activities that provide a climate benefit, whether as the primary objective, or as a co-benefit. In each year, ARB's resources to support the climate program equal or exceed the amount budgeted exclusively for AB 32 activities that are funded by the AB 32 Cost of Implementation Fee. ARB relies on other funding sources; the specific source is related to the activity. There are two reasons for this.

First, ARB has several measures and program areas that were originally designed to achieve other air quality goals and rely on different funding sources, but nonetheless provide a climate co-benefit by simultaneously reducing GHGs. Although the GHG

[12] Each year, beginning January 10, 2013, CARB shall provide the Legislature an AB 32 fiscal report. This annual report is to be retrospective and is intended to quantify the major revenue and CARB expenses for the AB 32 program for the prior fiscal year. The scope of the annual fiscal report should include: the AB 32 cost of implementation fee revenue, loans repaid, and overall AB 32 program expenses (staff, operations, and contracts) for the prior fiscal year; the total cap-and-trade auction funds; a summary of CARB AB 32 expenditures; the balance for the prior fiscal year; and allowance auction prices in order to assess trends. The annual fiscal report should include an update on activities and findings of the Market Surveillance Committee, as well as track and detail all expenses and revenues, including the following categories: all AB 32 costs, all cap-and-trade costs, low-carbon fuel standards, Renewable Portfolio Standards, Green Building strategy, and Landfill methane capture.

emission reductions associated with these other measures are counted towards achieving the AB 32 target and considered as part of the climate program, those activities may not necessarily be fully funded by the AB 32 Cost of Implementation Fee. For example, the ships-at-berth rule was initiated to reduce the community health risk from ship pollution, but the rule also provides substantial GHG co-benefits associated with using shore-based electrical power rather than burning fuel in onboard engines when the ships are in port.

Second, ARB's regulatory program has grown and evolved to address the agency's responsibilities under State and federal law to improve air quality at the local, regional, and global levels. ARB adopts, implements, and enforces regulations focused on meeting several different objectives:

- Reducing criteria pollutants (like ozone and fine particulate matter) to meet health-based air quality standards in each region;
- Reducing the localized health risk from air toxics (like benzene, hexavalent chromium or diesel particulate matter); and
- Reducing the greenhouses gases and short-lived climate pollutants that contribute to global climate change.

Although the statutory foundation for each of these regulatory programs is distinct, to the extent feasible, ARB looks to develop regulations and comprehensive programs that meet two or more of these objectives simultaneously. This approach enables ARB to use its resources most efficiently and benefits the industry by providing a public process that results in a consolidated set of requirements.

A. AB 32 Cost of Implementation Fee for FY 2012-13

Table 2-1 displays the Cross-Cut of the State Budget for FY 2012-13, which shows the budgetary authority for State agencies that use the AB 32 Cost of Implementation Fee revenue.

Table 2-1: AB 32 Cost of Implementation Fee Appropriations (FY 2012-13)

Department	Positions	Funding
Secretary for Environmental Protection	4	$586,000
Department of Housing and Community Development	1	$115,000
Department of Resources Recycling and Recovery	6	$496,000
Department of Forestry and Fire Protection	1	$290,000
Department of Water Resources	3	$316,000
Air Resources Board	158	$33,291,000
State Water Resources Control Board	2	$555,000
Department of Public Health	0	$348,000
Total	**175**	**$35,997,000**

Source: FY 2012-13 State Budget Cross-Cut. All dollars rounded to the nearest thousand.

The funds to support the AB 32 programs at multiple agencies, plus the funds needed for loan repayment, establish the total required revenue for the AB 32 Cost of Implementation Fee for FY 2012-13. Table 2-2 shows the required revenue, along with updated information on the revenue actually collected for FY 2012-13. The fee revenue collected typically runs slightly below the total required revenue.

Table 2-2: Total AB 32 Cost of Implementation Fee Expenses and Revenue (FY 2012-13)	
Total Department Appropriations	$35,997,000
Loan Repayment	$26,355,000
Total Required Revenue	**$62,352,000**
Fee Revenue Collected for FY 2012-13	**$62,204,000**

Source: FY 2012-13 State Budget Cross-Cut, with additional data on fees collected. All dollars rounded to the nearest thousand.

B. Overall ARB FY 2012-13 Resources to Implement AB 32

The FY 2012-13 State Budget approved ARB to use up to $33,291,000 from the AB 32 Cost of Implementation Fee to support ARB climate change programs. ARB also relied on $13,999,000 in funding from other sources for activities that provide a climate co-benefit (e.g., development of the Advanced Clean Cars Regulation that reduces air toxics, criteria air pollutants, GHGs, and short-lived climate pollutants). As shown in Table 2-3, ARB's actual FY 2012-13 resources to support climate change activities and implement AB 32 totaled $47,290,000.

Table 2-3: Overall ARB FY 2012-13 Expenditures to Support AB 32 (Actual)

Category	Funding
Personnel and operations expenses (salary, benefits, overhead, equipment, travel, training, etc.)	$39,290,000
Contract expenditures	$8,000,000
Total	**$47,290,000**

Source: ARB program management identification of specific personnel and total positions needed to meet FY 2012-13 objectives for each specific program area, including administration and legal support, combined with a loaded cost per position to cover staffing and overhead costs. All dollars rounded to the nearest thousand.

C. Program-Specific ARB FY 2012-13 Resources to Implement AB 32

1. Data Sources and Methodology

Historically, ARB has tracked AB 32 programs and activities to implement AB 32 in totality, not at the level of individual regulations. To comply with all mandates (State laws, regulations, and policies on fiscal programs), ARB uses the CALSTARS system, which is the accounting system required by the State.

In response to requests by the Legislature to see more detailed information regarding the costs to implement AB 32, ARB has committed to manually track and report on future AB 32 expenditures for personnel and operations, plus contracts, for the major elements of the climate program. ARB began collecting information on hours worked in specific AB 32 program areas from all affected employees beginning with the October 2013 pay period. ARB will use these data for future reports to the Legislature.

Without such data available for FY 2012-13, ARB management identified the specific personnel who supported AB 32-related activities in FY 2012-13 in each major program area and applied a loaded cost per position that accounts for the salary, benefits, and overhead associated with each position. This is aligned with the methodology used to populate the fiscal detail found within Budget Change Proposals presented to the Legislature for consideration.

For contract expenses, ARB relied on its records of actual expenditures in FY 2012-13 to support AB 32-related contracts. These funds for these contracts may have been encumbered in FY 2010-11, 2011-12, or 2012-13.

2. Retrospective Resources by Program Area

Table 2-4 shows ARB's estimate of the resources used to support programs in FY 2012-13 with climate benefits at ARB.

Table 2-4: ARB Expenditure of Funds in FY 2012-13 for Specific Program Activities that Support AB 32

AB 32 Program Area	Personnel & Operations Expenses	Contract Dollars Expended	Total by Program Area
Cap-and-Trade	$12,870,000	$4,200,000	$17,070,000
Low Carbon Fuel Standard	$7,940,000	$500,000	$8,440,000
Cost of Implementation Fee Administration	$880,000	$0	$880,000
Scoping Plan	$6,600,000	$300,000	$6,900,000
Other AB 32 Support Activities	$11,000,000	$3,000,000	$14,000,000
Total	**$39,290,000**	**$8,000,000**	**$47,290,000**

Source: ARB program management identification of specific personnel and total positions needed to meet FY 2012-13 objectives for each specific program area, including administrative and legal support, combined with a loaded cost per position to cover staffing and overhead costs. All dollars rounded to the nearest thousand.

II. CAP-AND-TRADE ALLOWANCE AUCTION

ARB and its contractors have conducted five auctions under the Cap-and-Trade Regulation through 2013. There were two types of allowances offered — current vintage allowances, including current year allowances from the State and those consigned to auction by the electric distribution utilities, as well as future vintage allowances offered by the State. The $836,329,483 raised by the sale of allowances consigned by utilities was returned to those utilities to be used as directed by the California Public Utilities Commission[13] or the public utilities' governing boards. The $532,557,981 raised by the sale of State-owned allowances was deposited into the State's Greenhouse Gas Reduction Fund, to be allocated in accordance with the State Budget. As of December 2013 there had not been expenditures from this fund. The auction results are summarized below and available at: http://www.arb.ca.gov/cc/capandtrade/auction/auction.htm.

Table 2-5: Greenhouse Gas Reduction Fund (as of December 14, 2013)	
November 2012 Cap-and-Trade auction 1	$55,760,000
February 2013 Cap-and-Trade auction 2	$83,923,548
May 2013 Cap-and-Trade auction 3	$117,580,484
August 2013 Cap-and-Trade auction 4	$138,494,503
November 2013 Cap-and-Trade auction 5	$136,799,446
Auction proceeds total	$532,557,981

III. EMISSIONS MARKET ASSESSMENT COMMITTEE

ARB contracted with national experts to form the Emissions Market Assessment Committee (EMAC, formerly the Market Surveillance Committee) to advise ARB regulatory staff on issues related to the performance and integrity of the emissions market. In 2013, EMAC provided advice to and analysis for ARB in important program areas, including: the potential implementation of a price containment ceiling, the release of market information, potential modifications to holding limits, and ways to modify the auction to increase market transparency. EMAC presented papers summarizing its recommendations on these topics at a public meeting on November 14, 2013.

For more information on the activities and meetings of the EMAC, please see: http://www.arb.ca.gov/cc/capandtrade/emissionsmarketassessment/emissionsmarketassessment.htm.

[13] In Decision D1212033 (Decision Adopting Cap-and-Trade Greenhouse Gas Allowance Revenue Allocation Methodology for the Investor-Owned Electric Utilities), the California Public Utilities Commission directed the utilities to distribute the auction proceeds to ratepayers.

SECTION 3:

ANNUAL REPORTS ON AB 32 RESOURCES

(July 2012-June 2013 and July 2013-June 2014)

Item 3900-001-0001 Air Resources Board Supplemental Report of the 2012-13 Budget[14] requires quantification and detailing of ARB's resources to implement AB 32 – prospectively and retrospectively. This prospective report covers the current Fiscal Year 2013-14. This retrospective report focuses on Fiscal Year 2012-13 and therefore includes the same material as previously presented in Section 2: Annual AB 32 Fiscal Report. The format for each report follows the elements of the Budget directive, focusing on quantifying the resources to support four key programs: Cap-and-Trade, Low Carbon Fuel Standard, AB 32 Cost of Implementation Fee, and the AB 32 Scoping Plan. The reports also identify the combined resources to support other AB 32-related activities.

Structure and Funding for Regulatory Activities. The resources estimated in this report are those used to support activities that provide a climate benefit, whether as the primary objective, or as a co-benefit. In each year, ARB's resources to support the climate program equal or exceed the amount budgeted exclusively for AB 32 activities that are funded by the AB 32 Cost of Implementation Fee. ARB relies on other funding sources; the specific source is related to the activity. There are two reasons.

First, ARB has several measures and program areas that were originally designed to achieve other air quality goals and rely on different funding sources, but nonetheless provide a climate co-benefit by simultaneously reducing GHGs. Although the GHG emission reductions associated with these other measures are counted towards achieving the AB 32 target and are considered part of the climate program, those activities may not necessarily be fully funded by the AB 32 Cost of Implementation Fee. For example, the ships-at-berth rule was initiated to reduce the community health risk from ship pollution, but the rule also provides substantial GHG co-benefits associated

[14] In addition, CARB shall provide two resource reports each year to the Legislature that quantify the CARB AB 32 staffing and operations expenses, as well as CARB contracts, by major AB 32 program area. First, CARB shall provide a prospective resource report with anticipated expenses each year by January 10. Second, CARB shall provide a retrospective resource report each year on or before January 10. The scope of the resources reports is to include the CARB resources (staffing, operations, and contracts) that were used to support major AB 32 program areas (cap-and-trade, low carbon fuel standard, cost of implementation fee, and the update to the AB 32 Scoping Plan). In addition, CARB is to provide an estimate of the combined resources for the other climate change-related activities (implementation of adopted regulations and coordination with other agencies).

with using shore-based electrical power rather than burning fuel in onboard engines when the ships are in port.

Second, ARB's regulatory program has grown and evolved to address the agency's responsibilities under State and federal law to improve air quality at the local, regional, and global levels. ARB adopts, implements, and enforces regulations focused on meeting several different objectives:

- Reducing criteria pollutants (like ozone and fine particulate matter) to meet health-based air quality standards in each region;
- Reducing the localized health risk from air toxics (like benzene, hexavalent chromium or diesel particulate matter); and
- Reducing the greenhouses gases and short-lived climate pollutants that contribute to global climate change.

Although the statutory foundation for each of these regulatory programs is distinct, to the extent feasible, ARB looks to develop regulations and comprehensive programs that meet two or more of these objectives simultaneously. This approach enables ARB to use its resources most efficiently and benefits the industry by providing a public process that results in a consolidated set of requirements.

I. AB 32 PROSPECTIVE RESOURCE REPORT FOR FY 2013-14

The FY 2013-14 State Budget approved ARB to use up to $35,894,000 from the AB 32 Cost of Implementation Fee to support AB 32 climate change programs. ARB also expects to rely on other sources of funding for activities that provide a climate co-benefit.

A. AB 32 Cost of Implementation Fee for FY 2013-14

Table 3-1 displays the Cross-Cut of the State Budget for FY 2013-14, which shows the budgetary authority for agencies that use the AB 32 Cost of Implementation Fee revenue.

Table 3-1: AB 32 Cost of Implementation Fee Appropriations (FY 2013-14)		
Department	**Positions**	**Funding**
Secretary for Environmental Protection	4	$586,000
Department of Housing and Community Development	6	$783,000
Department of Resources Recycling and Recovery	6	$515,000
Department of Forestry and Fire Protection	1	$576,000
Department of Water Resources	3	$324,000
Air Resources Board	158	$35,894,000
State Water Resources Control Board	2	$578,000
Department of Public Health	0	$348,000
Total	**180**	**$39,604,000**

Source: Cross-Cut for the FY 2013-14 State Budget. All dollars rounded to the nearest thousand.

The funds to support the AB 32 programs at multiple agencies, plus the funds needed for loan repayment and adjustments from prior fee collections, establish the total required revenue for the AB 32 Cost of Implementation Fee for FY 2013-14. Table 3-2 shows the required revenue, along with updated information on the revenue actually collected for FY 2013-2014. As of December 2013, the AB 32 Cost of Implementation Fee Program has collected over 99 percent of billable fees from fee payers.

Table 3-2: Total AB 32 Cost of Implementation Fee Expenses and Revenue (FY 2013-14) (as of December 2013)	
Total Department Appropriations	$39,604,000
Loan Repayment (includes interest)	$10,717,000
Adjustments from Previous FY Collections	($660,000)
Total Required Revenue	$49,661,000
Fee Revenue Collected for FY 2013-14	**$49,541,000**

Source: Cross-Cut for the FY 2013-14 State Budget, with additional data for interest on loans and revenue collected in previous fiscal years. All dollars rounded to the nearest thousand.

Table 3-3 displays the funds appropriated through the FY 2013-14 State Budget from the Greenhouse Gas Reduction Fund, a new fund established to receive the proceeds from the sale of State-owned allowances under the Cap-and-Trade Program. ARB anticipates reporting Greenhouse Gas Reduction Fund expenses beginning with the FY 2014-15 Annual Report.

Table 3-3: Greenhouse Gas Reduction Fund Appropriations (FY 2013-14)		
Department	**Positions**	**Funding**
Office of Environmental Health Hazard Assessment	3	$577,000
Air Resources Board Positions	2	$308,000
Air Resources Board Contracts Budgeted*	--	$1,000,000
Total	**5**	**$1,885,000**

*ARB is committed to ensuring a robust and well-functioning Cap-and-Trade Program. To further increase confidence in the Cap-and-Trade Program, ARB anticipates using GGRF funding to contract with independent auditor(s) to evaluate the procedures and systems used to administer the auctions and program within ARB and with its contractors.

B. Overall ARB FY 2013-14 Resources to Implement AB 32

Table 3-4 shows the estimated total ARB resources needed to support AB 32 that will be funded by the Cost of Implementation Fee, the Greenhouse Gas Reduction Fund, and additional sources in FY 2013-14. As noted above, ARB also expects to rely on other sources of funding for activities that provide a climate co-benefit.

Table 3-4: Overall ARB FY 2013-14 Resources to Implement AB 32	
Category	**Funding**
Personnel and operations expenses (salary, benefits, overhead, equipment, travel, training, etc.)	$38,228,000
Contracts budgeted	$9,000,000
Total	**$47,228,000**

Source: ARB program management identification of specific personnel and total positions needed to meet FY 2013-14 objectives for each specific program area, including administration and legal support, combined with a loaded cost per position to cover staffing and overhead costs. All dollars rounded to the nearest thousand.

C. Program-Specific ARB FY 2013-14 Resources to Implement AB 32

Table 3-5 provides a breakdown by major program area of FY 2013-14 resource estimates for personnel and operations, plus contract dollars allocated, for all ARB activities that provide a climate benefit and support AB 32. The contract dollar amounts allocated show the FY 2013-14 funds to be encumbered via contracts. Section 1 of this report, the Program Update, provides a discussion of contracts for major program areas.

Table 3-5: Program-Specific ARB FY 2013-14 Resources to Support AB 32			
AB 32 Program Area	**Estimated Personnel and Operations Expenses**	**Contract Dollars Allocated**	**Estimated Total by Program Area**
Cap-and-Trade	$13,326,000	$2,300,000	$15,626,000
Low Carbon Fuel Standard	$8,388,000	$2,000,000	$10,388,000
Cost of Implementation Fee Administration	$660,000	$0	$660,000
Scoping Plan	$8,154,000	$100,000	$8,254,000
Other AB 32 Support Activities	$7,700,000	$1,900,000	$9,600,000
Not Yet Obligated		$2,700,000	$2,700,000
Total	**$38,228,000**	**$9,000,000**	**$47,228,000**

Source: ARB program management identification of specific personnel and total positions needed to meet FY 2013-14 objectives for each specific program area, including administration and legal support, combined with a loaded cost per position to cover staffing and overhead costs. Some resources previously accounted for under "Other AB 32 Activities" in prior fiscal years are being temporarily redirected in this year to support the Update to the Scoping Plan. Contract funding refers to FY 2013-14 monies that have been or will be encumbered in this fiscal year, but may be expended through June 2017. All dollars rounded to the nearest thousand.

II. AB 32 RETROSPECTIVE RESOURCE REPORT FOR FY 2012-13

Note: the text in this part duplicates the text in Section 2: Annual AB 32 Fiscal Report I-A, through I-C.

A. AB 32 Cost of Implementation Fee for FY 2012-13

Table 3-6 displays the Cross-Cut of the State Budget for FY 2012-13, which shows the budgetary authority for State agencies that use the AB 32 Cost of Implementation Fee revenue.

Table 3-6: AB 32 Cost of Implementation Fee Appropriations (FY 2012-13)		
Department	**Positions**	**Funding**
Secretary for Environmental Protection	4	$586,000
Department of Housing and Community Development	1	$115,000
Department of Resources Recycling and Recovery	6	$496,000
Department of Forestry and Fire Protection	1	$290,000
Department of Water Resources	3	$316,000
Air Resources Board	158	$33,291,000
State Water Resources Control Board	2	$555,000
Department of Public Health	0	$348,000
Total	**175**	**$35,997,000**

Source: FY 2012-13 State Budget Cross-Cut. All dollars rounded to the nearest thousand.

The funds to support the AB 32 programs at multiple agencies, plus the funds needed for loan repayment, establish the total required revenue for the AB 32 Cost of Implementation Fee for FY 2012-13. Table 3-7 shows the required revenue, along with updated information on the revenue actually collected for FY 2012-13. The fee revenue collected typically runs slightly below the total required revenue.

Table 3-7: Total AB 32 Cost of Implementation Fee Expenses and Revenue (FY 2012-13)	
Total Department Appropriations	$35,997,000
Loan Repayment	$26,355,000
Total Required Revenue	**$62,352,000**
Fee Revenue Collected for FY 2012-13	**$62,204,000**

Source: FY 2012-13 State Budget Cross-Cut, with additional data on fees collected. All dollars rounded to the nearest thousand.

B. Overall ARB FY 2012-13 Resources to Implement AB 32

The FY 2012-13 State Budget approved ARB to use up to $33,291,000 from the AB 32 Cost of Implementation Fee to support ARB climate change programs. As shown in Table 3-8, ARB's actual FY 2012-13 resources to support climate change activities and implement AB 32 totaled $47,290,000. ARB also relied on $13,999,000 in funding from other sources for activities that provide a climate co-benefit (e.g., development of the Advanced Clean Cars Regulation that reduces air toxics, criteria air pollutants, greenhouse gases, and short-lived climate pollutants).

Table 3-8: Overall ARB FY 2012-13 Expenditures to Support AB 32 (Actual)

Category	Funding
Personnel and operations expenses (salary, benefits, overhead, equipment, travel, training, etc.)	$39,290,000
Contract expenditures	$8,000,000
Total	**$47,290,000**

Source: ARB program management identification of specific personnel and total positions needed to meet FY 2012-13 objectives for each specific program area, including administration and legal support, combined with a loaded cost per position to cover staffing and overhead costs. All dollars rounded to the nearest thousand.

C. Program-Specific ARB FY 2012-13 Resources to Implement AB 32

1. Data Sources and Methodology

Historically, ARB has tracked AB 32 programs and activities to implement AB 32 in totality, not at the level of individual regulations. To comply with all mandates (State laws, regulations, and policies on fiscal programs), ARB uses the CALSTARS system, which is the accounting system required by the State.

In response to requests by the Legislature to see more detailed information regarding the costs to implement AB 32, ARB has committed to manually track and report on future AB 32 expenditures for personnel and operations, plus contracts, for the major elements of the climate program. ARB began collecting information on hours worked in specific AB 32 program areas from all affected employees beginning with the October 2013 pay period. ARB will use these data for future reports to the Legislature.

Without such data available for FY 2012-13, ARB management identified the specific personnel who supported AB 32-related activities in FY 2012-13 in each major program area and applied a loaded cost per position that accounts for the salary, benefits, and overhead associated with each position. This is aligned with the methodology used to populate the fiscal detail found within Budget Change Proposals presented to the Legislature for consideration.

For contract expenses, ARB relied on its records of actual expenditures in FY 2012-13 to support AB 32-related contracts. These funds for these contracts may have been encumbered in FY 2010-11, 2011-12, or 2012-13.

2. Retrospective Resources by Program Area

Table 3-9 shows ARB's estimate of the resources used to support programs in FY 2012-13 with climate benefits at ARB.

Table 3-9: ARB Expenditure of Funds in FY 2012-13 for Specific Program Activities that Support AB 32

AB 32 Program Area	Personnel & Operations Expenses	Contract Dollars Expended	Total by Program Area
Cap-and-Trade	$12,870,000	$4,200,000	$17,070,000
Low Carbon Fuel Standard	$7,940,000	$500,000	$8,440,000
Cost of Implementation Fee Administration	$880,000	$0	$880,000
Scoping Plan	$6,600,000	$300,000	$6,900,000
Other AB 32 Support Activities	$11,000,000	$3,000,000	$14,000,000
Total	**$39,290,000**	**$8,000,000**	**$47,290,000**

Source: ARB program management identification of specific personnel and total positions needed to meet FY 2012-13 objectives for each specific program area, including administration and legal support, combined with a loaded cost per position to cover staffing and overhead costs. All dollars rounded to the nearest thousand.

SECTION 4:

SEMI-ANNUAL UPDATE ON WESTERN CLIMATE INITIATIVE, INC. ACTIVITIES

(July 2013 – June 2014)

This report is required by the provisions of Senate Bill 1018 (Chapter 39, Statutes of 2012)[15], which requires advance notice of any Air Resources Board (ARB) payments to the Western Climate Initiative, Incorporated (WCI, Inc.) over $150,000 and semi-annual updates on the actions proposed by Western Climate Initiative, Inc. (WCI, Inc.) that affect California government or entities. This update focuses on recent WCI, Inc. actions, as ARB provides separate notices more frequently to the Joint Legislative Budget Committee prior to any transfer or expenditure to WCI, Inc. over $150,000.

I. BACKGROUND

WCI, Inc. is a non-profit corporation that focuses solely on providing administrative support for jurisdictions' cap-and-trade programs, and is separate from the Western Climate Initiative (WCI). WCI, Inc. was formed in 2011 to coordinate administrative services to cap-and-trade programs developed and implemented by states and provinces. The Board of Directors for WCI, Inc. includes officials from the provinces of Québec and British Columbia, and the State of California. The administrative support provided by WCI, Inc. can be expanded to support jurisdictions that join in the future.

The coordinated administrative support from WCI, Inc. benefits California and the other participating programs.

- Coordinated support ensures that all the linked programs use the same highly secure computer program infrastructure, including the allowance tracking system and auction platform.

- Coordinated support ensures that analyses performed to support market monitoring in each jurisdiction are conducted consistently and effectively for the entire compliance instrument market across all the linked programs.

[15] Government Code, Section 12894(d) "The Chairperson of the State Air Resources Board and the Secretary for Environmental Protection, as the California voting representatives on the Western Climate Initiative, Incorporated, shall report every six months to the Joint Legislative Budget Committee on any actions proposed by the Western Climate Initiative, Incorporated, that affect California state government or entities located within the state."

- Coordinated support enables the linked programs to share the cost of developing and maintaining program infrastructure, thereby reducing the costs for each jurisdiction.

WCI, Inc.'s approach to coordinating administrative support is to have each jurisdiction specify its administrative requirements, and then for WCI, Inc. to provide support that meets these specifications. Currently, British Columbia, California, and Québec participate in WCI, Inc. California and Québec are currently implementing cap-and-trade programs to reduce GHG emissions.

Most of the administrative support provided by WCI, Inc. is highly technical or specialized and has been developed through the use of contractors. WCI, Inc. is:

- Coordinating the development and administration of the Cap-and-Trade Compliance Instrument Tracking System Service (CITSS);

- Coordinating the development and administration of an allowance auction platform, used by California and Québec to auction emission allowances under their cap-and-trade programs and to conduct reserve sales;

- Coordinating the performance of analyses to support market monitoring performed by each jurisdiction of allowance auctions and allowance and offset certificate trading; and

- Coordinating auction and reserve sale financial administration, which includes evaluation of bid guarantees and settlement (transferring the payments from the auction and reserve sale purchasers to the sellers).

Whereas WCI has focused on collaboration on emissions trading policies, WCI, Inc. is solely administrative in nature. All policymaking and regulatory authority for each jurisdiction's program is retained by each jurisdiction. According to the WCI, Inc. bylaws, its administrative activities must "…conform to the requirements of State and Provincial programs…" The requirements are defined by the participating jurisdictions, such that WCI, Inc. must execute its administrative role in conformance with the requirements established by ARB and the other jurisdictions.

II. UPDATE

A. <u>Introduction</u>

This report describes the activities of WCI, Inc. from July 2013 through December 2013, and presents WCI, Inc.'s anticipated activities in the first half of 2014.

Highlights of recent activities include:

- The WCI, Inc. Board adopted a budget for calendar years 2014 and 2015

- The WCI, Inc. Board adopted a Records Availability Policy.
- Contracts for administrative support services were amended.

In 2014, WCI, Inc. anticipates continuing to coordinate administrative support to the California and Québec programs. An Assistant Director is expected to be hired and located in Québec. The annual financial audit will be conducted by an independent auditor under the direction of the Audit Committee. WCI, Inc. will continue to be funded by ARB and Québec.

B. Corporate Governance

WCI, Inc. is governed by a Board of Directors according to its bylaws and the policies adopted by the WCI, Inc. Board. The bylaws and policies are posted on the WCI, Inc. website: http://www.wci-inc.org/documents.php. Table 4-1 lists the policies that have been adopted by the WCI, Inc. Board.

Table 4-1: WCI, Inc. Corporate Policies (as of December 31, 2013)
Records Availability Policy (Adopted December 9, 2013)
Open Meeting Policy (Adopted May 8, 2013)
Accounting Policies and Procedures (Adopted May 8, 2013)
Employee Handbook (Adopted April 15, 2013)
Funds Management Policy (Adopted October 30, 2012)
Procurement Policy (Adopted January 12, 2012)
Audit Committee Charter (Adopted November 3, 2011)
Ethical Guidelines and Conflict of Interest Policy (Adopted November 3, 2011, Revised November 9, 2013)
Retention of Business Records Policy (Adopted November 3, 2011)
Whistleblower Protection Policy (Adopted November 3, 2011)

One new policy was adopted by the WCI Inc. Board at its December 9, 2013 meeting:

- The *Records Availability Policy* ensures that the operations of WCI, Inc. are conducted in a transparent and open manner. The Records Availability Policy was designed to be consistent with the general policies of the California Public Records Act, affording the public the greatest possible access to WCI, Inc. records, consistent with applicable law and the other duties of the organization, including respect for and protection of personal and other confidential information.

Also at its December 9, 2013 meeting, the Board clarified and strengthened the *Ethical Guidelines and Conflict of Interest Policy* to change the questionnaire component of the policy to a disclosure and certification requirement. The revised policy requires each Board Member and employee annually to certify that she/he has no prospective or potential conflicts of interest, or to disclose any prospective conflicts of interest. The policy continues to require that immediately upon learning of an actual or potential conflict of interest, a Board Member or employee must promptly disclose all material facts of the actual or potential conflict.

Directors from California remain unchanged since the July 2013 report:

- Secretary for Environmental Protection, Matthew Rodriquez
- Chairman of the Air Resources Board, Mary Nichols
- Assembly Member Nancy Skinner, appointed by the Speaker of the Assembly (non-voting director)
- Mr. Kip Lipper, appointed by the Senate Rules Committee (non-voting director).

The WCI, Inc. Board officers were selected at the December 9, 2013 meeting of the Board. The most recently named director from Québec, Geneviéve Moisan, replaced Charles Larochelle, and was selected as Vice Chair. The other officers remain unchanged since the last report:

- Chair, Matthew Rodriquez (California)
- Vice Chair, Geneviéve Moisan, (Québec)
- Treasurer, Mary Nichols (California)
- Secretary, Tim Lesiuk (British Columbia)
- Director, Jean-Yves Benoit (Québec)

C. <u>Staffing and Operations</u>

No staff changes have been made since the last report to the JLBC. WCI, Inc. staffing includes the following.

- Executive Director: Patrick Cummins serves as the Executive Director.
- Project Managers: WCI, Inc. has two part-time project managers to oversee contracts related to the CITSS, the auction platform, financial administration, and market analysis.
- Business Services: WCI, Inc. uses a contractor to support day-to-day business operations and has engaged the services of an accountant.
- Insurance and Banking: WCI, Inc. has retained insurance coverage and banking services.
- Office: WCI, Inc. has an office in Sacramento.
- WCI, Inc. has contracted for the services of a corporate counsel.

In 2014, WCI, Inc. is planning to hire an Assistant Director located in Canada to support the Executive Director with all operational and business requirements.

As directed in the Audit Committee Charter, in 2014 the Audit Committee will engage an independent auditor and oversee the work of the auditor to review the Corporation's annual financial statement and tax filings. The tax filings, audited financial statements, and audit report prepared in 2013 are available on the WCI, Inc. website: http://www.wci-inc.org/documents.php.

D. Delivery Capability

WCI, Inc. has entered into the following contracts to provide support to state and provincial programs:

- Compliance Instrument Tracking System Service (CITSS) Development and Hosting: CITSS provides accounts for program participants to hold compliance instruments and to record transactions of compliance instruments with other account holders. Program participants access CITSS online. CITSS is supporting the programs in California and Québec. In May 2012, WCI, Inc. contracted with SRA International, Inc. to further develop CITSS and to provide web hosting for its operation. At its December 2012 meeting, the WCI, Inc. Board approved an amendment to the SRA contract to continue CITSS development through the end of 2013. In December 2013, the WCI, Inc. Board extended the contract through December 2015. The value of the contract extension was approximately $1.9 million.

- Auction Platform: In January 2013, WCI, Inc. contracted with Markit Group Limited for the continued development of the auction platform. In May 2013, WCI, Inc. amended the contract to update the schedule and budget to reflect the expected timing of the linking of the California program with the Québec program. The amended agreement covers the period January 2013 through May 2014. In December 2013, the WCI, Inc. Board extended the contract through December 2015. The value of the extension for auction and reserve sale administration was approximately $633,000 of additional funding plus reprogramming of $132,000 of funds remaining in the existing contract. Also, about $271,000 of funds in the existing contract were moved from 2013 to 2014 to reflect the adjusted completion date of tasks from 2013 to 2014.

- Market Analysis: In January 2013, WCI, Inc. contracted with Monitoring Analytics, LLC for analyses in support of market monitoring being conducted by California and Québec. In May 2013, WCI, Inc. amended the contract to update the activities being performed in 2013 to reflect that the California and Québec programs would not link until January 1, 2014. In December 2013, the WCI, Inc. Board extended the contract through December 2015. The value of the extension was approximately $520,000 for market analysis to support monitoring of auctions, reserve sales, and market activity throughout the period.

- Auction and Reserve Sale Financial Administration: In September 2013, WCI, Inc. contracted with Deutsche Bank Trust Company Americas for auction and reserve sale financial administration, which includes evaluation of bid guarantees and settlement (transferring the payments from the auction and reserve sale purchasers to the sellers). The agreement was for the period September 2013 through

December 2013. In December 2013, the WCI, Inc. Board extended the contract through December 2015. The value of the extension was approximately $640,000 for auction and reserve sale financial administration.

- CITSS Help Desk Support: In October 2012, WCI, Inc. contracted with ICF Incorporated, LLC for help desk services to respond to inquiries from CITSS users. These services were initiated in December 2012 and run through September 2015.

WCI, Inc. contracts for administrative services in support of jurisdiction programs are posted to the WCI, Inc. website: http://www.wci-inc.org/documents.php.

E. Budget and Funding

In December 2012, the WCI, Inc. Board approved the 2013 budget and directed WCI, Inc. staff to prepare a narrative description of the budget and to post the materials on the WCI, Inc. website when completed. The narrative description was presented to the WCI, Inc. Board in May 2013 and approved at that time.

The total funding of WCI, Inc. for calendar years 2012 and 2013 was (all US dollars):

- ARB agreement: $3,738,251
- First Québec agreement: $100,000
- Second Québec agreement: $1,548,749.

The WCI, Inc. Board adopted the WCI, Inc. budget for calendar years 2014 and 2015 at its December 2013 WCI, Inc. Board meeting. The requirements for cap-and-trade services were defined by the California and Québec staff based on the support needed to implement their programs in 2014 and 2015. These jurisdiction requirements were used to define the work for the cap-and-trade services contractors. WCI, Inc. developed the requirements for WCI, Inc. personnel and direct operations needed to support the provision of these cap-and-trade services, as well as to carry out its administrative and organizational responsibilities. The resulting budget provides best estimates of the anticipated fiscal requirements for the operation of WCI, Inc. for this two year period.

The total budget for the two years is approximately $6.88 million.[16] Of this total, about 69 percent, $4.7 million, is for cap-and-trade services provided through contractors. The remaining 31 percent, $2.2 million, is for personnel and other operating costs. Personnel expenditures include salary and benefits for employees and payments to contractors providing project management and business management services. Operating costs include office rent and equipment, professional and administrative

[16] On November 12, 2013 the ARB notified the Joint Legislative Budget Committee of the activities anticipated at the December 9, 2013 Board meeting. In that notice, the proposed budget was reported as approximately $6.6 million. The higher value of $6.88 million reflects the approximately $282,000 of service contract work that was expected to be completed in 2013 that is planned to be completed in 2014.

support services (legal, accounting, audit, translation), insurance fees, travel and meeting expenses, and other direct operating expenses.

The WCI, Inc. budgets are available on the WCI, Inc. website: http://www.wci-inc.org/documents.php.

WCI, Inc. is discussing funding agreements with California and Québec that correspond to the approved budget for calendar years 2014 and 2015. The share of funding to be provided by each in 2014 and 2015 is being determined in three parts:

- The cost of running WCI, Inc. (personnel and operating costs) is divided equally between ARB and Québec.

- The cost of the cap-and-trade service contracts is divided based on the total emissions covered by each jurisdiction's trading program, 85 percent to ARB and 15 percent to Québec.

- The cost of jurisdiction-specific administrative support is assigned fully to each jurisdiction. This support focuses primarily on the execution of reserve sales that are conducted individually for each of the Québec and California programs using the auction platform and financial administrative services.

In calculating the amounts of the ARB and Québec funding agreements for 2014 and 2015, WCI, Inc. is recommending that funds remaining from the 2012 and 2013 funding be used to cover a portion of the 2014 and 2015 budget required for cap-and-trade service contracts. Based on projected cash flow requirements for ongoing operations, WCI, Inc. recommends that approximately $664,000 is available and can be used for this purpose. Additionally, approximately $282,000 of service contract work that was expected to be completed in 2013 is planned to be completed in 2014. The funding for this work remains in existing service contracts and can be applied to the 2014 budget.

As discussed above, the WCI, Inc. budget for 2014 and 2015 is approximately $6.88 million. Given the application of $664,000 of funds from 2012 and 2013, and the $282,000 from existing contracts, the funding requirement from ARB and Québec for 2014 and 2015 is approximately $5.94 million for the two years. Using the three factors to share the costs discussed above, the ARB portion of the nearly $6 million is approximately $4 million, or $2 million for each of the two years. The ARB share of the $4 million is comprised of about $2.5 million for cap-and-trade service contracts, $1 million for WCI, Inc. personnel and operating costs, and $0.5 million for California-specific administrative support contract services.

ARB will develop a funding agreement and provide it to WCI, Inc. WCI, Inc. would enter into the agreement upon approval by its Board of Directors. Following approval, the agreement would be posted to the WCI, Inc. website.

During the discussion of the budget at the December 9, 2013 Board meeting, it was pointed out that the funding that ARB expects to provide to WCI, Inc. for its operations in 2015 has not yet been appropriated by the Legislature. It was explained that ARB's funding of WCI, Inc. has been and will continue to be contingent on the availability of appropriated funds. Additionally, the contracts entered into by WCI, Inc. can be terminated for any reason, including due to funding not being available from California. Consequently, the adoption of the WCI, Inc. budget does not create a funding obligation on California. When the Board adopted the budget, it committed to review the WCI, Inc. budget after the California Legislature and the Québec National Assembly take action on their respective budgets. The review will be conducted at the meeting of the Board that follows the action, but no later than the next annual meeting of the Board.

F. Planned Payments to WCI, Inc.

For calendar years 2012 and 2013, ARB's share of the WCI, Inc. budget was approximately $3.7 million. ARB's agreement with WCI, Inc. for calendar years 2012 and 2013 and can be accessed at:
http://www.arb.ca.gov/cc/capandtrade/wci/agreement.pdf.

The payments from ARB to WCI, Inc. under the funding agreement for calendar years 2012 and 2013 were unchanged from the amounts reported previously to the JLBC. Under the terms of the agreement, ARB made quarterly payments to WCI, Inc. over a two-year period in the total amount of $3,738,251, as shown in Table 4-2.

Similar to the past funding agreement, ARB expects to propose to make quarterly payments during the year to WCI, Inc. rather than paying its full share at one time. ARB already has $2 million in its Fiscal 2013-14 budget for this purpose. ARB's additional funding for WCI, Inc. is subject to future appropriation by the Legislature.

Table 4-2: Past and Planned Payments from ARB to WCI, Inc. for Calendar Years 2012 and 2013

Payment	Payment Date	Amount
2012 Q1 Payment	7/1/2012	$800,000
2012 Q2 Payment	8/30/2012	$268,346
2012 Q3 Payment	1/17/2013	$268,346
2012 Q4 Payment	2/6/2013	$268,346
2013 Q1 Payment	5/28/2013	$1,000,000
2013 Q2 Payment	8/30/2013	$377,737
2013 Q3 Payment	12/6/2013	$377,737
2013 Q4 Payment	Invoiced January 2, 2014	$377,739
Total		**$3,738,251**