

AGENDA

ASSEMBLY BUDGET COMMITTEE NO. 3 RESOURCES AND TRANSPORTATION

ASSEMBLYMEMBER RICHARD BLOOM, CHAIR

WEDNESDAY, MARCH 15, 2017

9:30 A.M. - STATE CAPITOL ROOM 447

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ITEMS TO BE HEARD

3900 CALIFORNIA AIR RESOURCES BOARD

ISSUE 1: AIR RESOURCES BOARD ENFORCEMENT ACTIONS

The Subcommittee will receive a briefing regarding the Air Resources Board enforcement activities.

BACKGROUND

Fifty years ago, in 1967, California's Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus--the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board--to establish the Air Resources Board (ARB). On February 8, 1968, the first meeting of the ARB was held in Sacramento. Since its formation, the ARB has worked with the public, the business sector and local governments to find solutions to California's air pollution problem. The resulting state air quality standards set by the ARB continue to outpace the rest of the nation and have prompted the development of new antismog technology for industrial facilities and motor vehicles.

The ARB also oversees the activities of 35 local and regional air pollution control districts. These districts regulate industrial pollution sources. They also issue permits, develop local plans to attain healthy air quality and ensure that the industries in their area adhere to air quality mandates

ARB's Enforcement Division works to ensure compliance with these regulations, and supports local air districts in their efforts to ensure industry compliance with their stationary source programs. ARB's enforcement program is designed to help ensure that industry complies with regulatory requirements, in order to promote a fair and level playing field for companies operating in California, and to ensure that emissions reductions that were envisioned when ARB's rules were adopted are achieved. The Enforcement Division is responsible for enforcing most of ARB's regulatory programs, with an emphasis on enforcing rules related to diesel and goods movement, vehicle, engine, and parts certification, fuels, consumer products, and stationary sources. Due to the extensive efforts ARB has taken over the past 15 years to regulate sources of diesel emissions, over 40 percent of the Division's staff resources are currently dedicated to enforcing diesel regulations that apply to heavy-duty trucks, off-road equipment, ships, and other sources. In addition to enforcing rules related to traditional air quality and toxics emissions, the Division is also expanding its role in enforcing ARB's greenhouse

gas rules, including landfill methane gas, refrigerant management, sulfur hexafluoride, and the low carbon fuel standard.

STAFF COMMENT

The Subcommittee will consider how ARB allows California to play an active role in insuring the enforcement of pollution laws. California's enforcement often collaborates with federal environmental enforcement efforts, but may have to play more of a leadership role in these efforts given the new leadership in Washington DC.

The ARB will use the recent VW settlement to illustrate the important role that ARB plays in enforcement. The Subcommittee will fully consider the budgetary requests associated with the VW settlement at the May 3rd hearing.

The ARB provided the attached chart that accompanies their discussion regarding the VW Settlement to help illustrate the State's role.

VW -- Several Partial Settlements Provide Relief to California
(below outlines monetary relief portions of the CARB and joint CARB/EPA settlements)

Partial Consent Decrees and Court Status	Diesel Vehicle Types and Numbers	Money Paid to Trust for Mitigation	Penalties Or Costs	Supplemental VW Investments Zero-Emission Vehicle (ZEV) Market
First Partial Consent Decree Joint CARB/EPA <i>(Court approved on October 25, 2016)</i>	2.0 Liter engine vehicles In US about 475,000 cars In CA about 70,000 cars	Nationwide \$2.7B (\$900M for 3 years to court-established trust) CA's share is about \$381M	Limited costs to implement trust-approved projects can be deducted from total by trustee and by states, if approved.	Nationwide \$2B total over 10 years CA's share is \$800M over 10 years. To count, VW's investments must be approved by CARB in plan.
Second Partial Consent Decree Joint CARB/EPA <i>(Lodged with court on December 20, 2016 for public comment; court consideration in May 2017)</i>	3.0 Liter engine vehicles In US about 80,000 cars In CA about 15,000 cars	Nationwide \$225M to court-established trust CA's share is about \$41.8M	Limited costs to implement trust-approved projects can be deducted from total by trustee and by states, if approved.	
California Second Partial Consent Decree <i>(Lodged with court for approval on December 20, 2016; court consideration in May 2017)</i>	3.0 Liter engine vehicles Same as above: in CA about 15,000 cars	\$25M to CA Air Pollution Control Fund (ZEV-related projects for low-income Californians)		Additional ZEV models to CA in 2019 and 2020. Also 5,000 ZEV cars per year until 2025.
California Third Partial Consent Decree <i>(to be lodged with court in March 2017)</i>	Applies to both 2.0L and 3.0L engine vehicles (totaling about 85,000 cars)		\$153.8M to CA Air Pollution Control Fund:**\$93.8M civil penalties for deterrence **\$60M (\$10M annually for 6 years) costs associated with testing and implementation	

Staff Recommendation: Informational Item, No Action Needed

ISSUE 2: AIR RESOURCES BOARD OUTCOMES

The Air Resources Board will discuss programmatic outcomes.

BACKGROUND

ARB is tasked with three overarching mandates.

1. Achieve the health-based air quality standards for ozone, particulate matter and other air pollutants established by the U.S. Environmental Protection Agency under the federal Clean Air Act. To attain the ozone standard of 75 parts per billion in the South Coast, the nation's smoggiest region, California must reduce emissions of oxides of nitrogen (NOx) 80 percent from today's levels by 2031.
2. Reduce public exposure to toxic air pollution, such as benzene, lead, and diesel particulate matter. Following requirements to remove lead and reduce other toxic chemicals from fuels, benzene levels measured in the air have declined by 90 percent over the last 25 years. As a result, the critical focus of the State's efforts today is on reducing public exposure to toxic diesel particulate emissions. California's goal is to reduce diesel particulate emission by 85 percent by 2020.
3. Reduce greenhouse gas (GHG) emissions to 1990 levels by 2020, to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050.

These mandates represent the overarching goals or policy drivers that each individual regulation or program is designed to achieve. Many of the measures that ARB develops address more than one of these goals. ARB undertakes a public planning process to identify the regulations or programs necessary to achieve these goals. Each individual measure, along with its specific requirements, is then developed through its own unique public process.

ARB tracks overall progress toward these goals at three levels simultaneously:

1. Measurements of actual pollution in the air,
2. Ongoing evaluation of emissions and emissions reductions using the emissions inventory, and
3. Detailed program implementation metrics.

Real-world measurement of air quality and pollution in the air is the most direct measure of the effectiveness of ARB's programs. Since 1990, ozone levels have dropped by 45 percent in the South Coast, the nations' smoggiest region. In the San Joaquin Valley, where fine particulate matter levels are the highest nationwide, fine particulate matter has dropped 20 percent since 2001. Of the 19 areas that once exceeded the original ozone standards, only four still exceed the standard today. Twenty-five years ago the entire South Coast region violated the ozone standard. Today, 40 percent of the population lives in communities that meet the standard.

The emissions inventory is the second tool used for analyzing progress and the effectiveness of our emission reduction programs. It includes the needed technical detail within each source category or sector to see where, how, and why emissions are changing. Most critically, the emissions inventory reflects the interaction among programs such as how a fuel standard works in concert with an engine standard to achieve emission reductions. This is important because the combined benefits of many programs are not equal to the sum of the program benefits estimated separately. For example, clean diesel engines require clean low sulfur fuel to work properly. Thus, standards needed to be set for both the engines and the fuel, and the emission reductions result from the combination of these actions rather than each standard individually.

Finally, ARB tracks program effectiveness program-by-program by evaluating implementation metrics. The metrics vary for each specific program or regulation since each program is unique in what it is designed to address, how it is enforced, how regulated entities report, and how it interacts with other programs.

STAFF COMMENT

The ARB oversees a complex and interwoven collection of programs and regulations that intend to achieve the three overarching pollution reduction goals. During an April 10, 2016 oversight hearing ARB submitted a 133 page matrix to describe all of its activities and programs related to transportation-related programs.

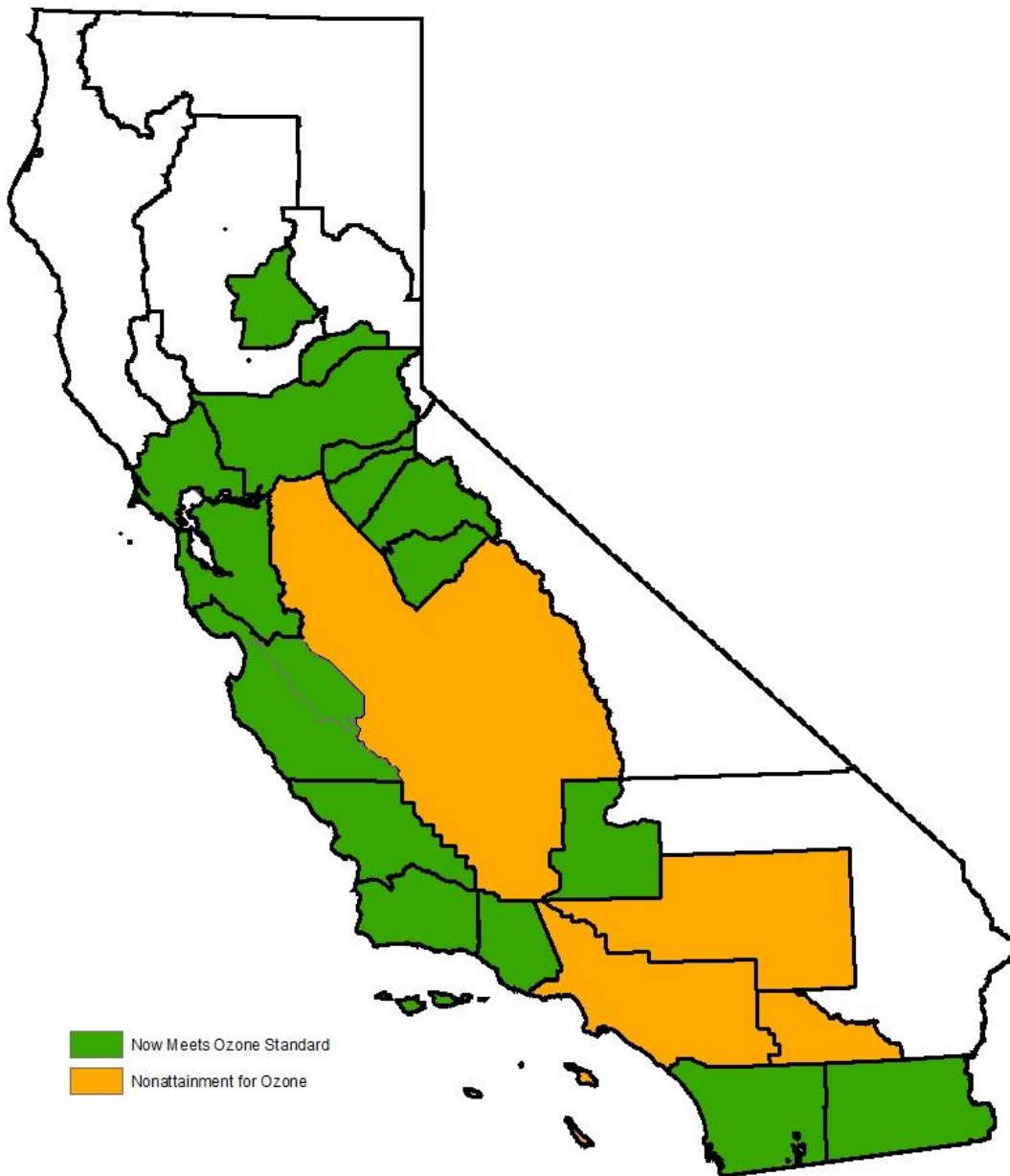
The Subcommittee will consider ARB's approach to managing these efforts. Among the questions the Subcommittee may wish to consider are:

- How does ARB coordinate its many initiatives to insure they work together to achieve program goals?
- How does the ARB know which initiatives are the most effective in reducing pollution?
- How does incorporate the feedback from stakeholders, like environmental justice and the business community, in creating and adjusting its programs?
- Can ARB provide an example of a program or initiative that had clear benefits to the environment?
- Can ARB provide an example of a program or initiative that did not work and had to be revised or eliminated?

The ARB has provided the following charts to illustrate their testimony on this issue:

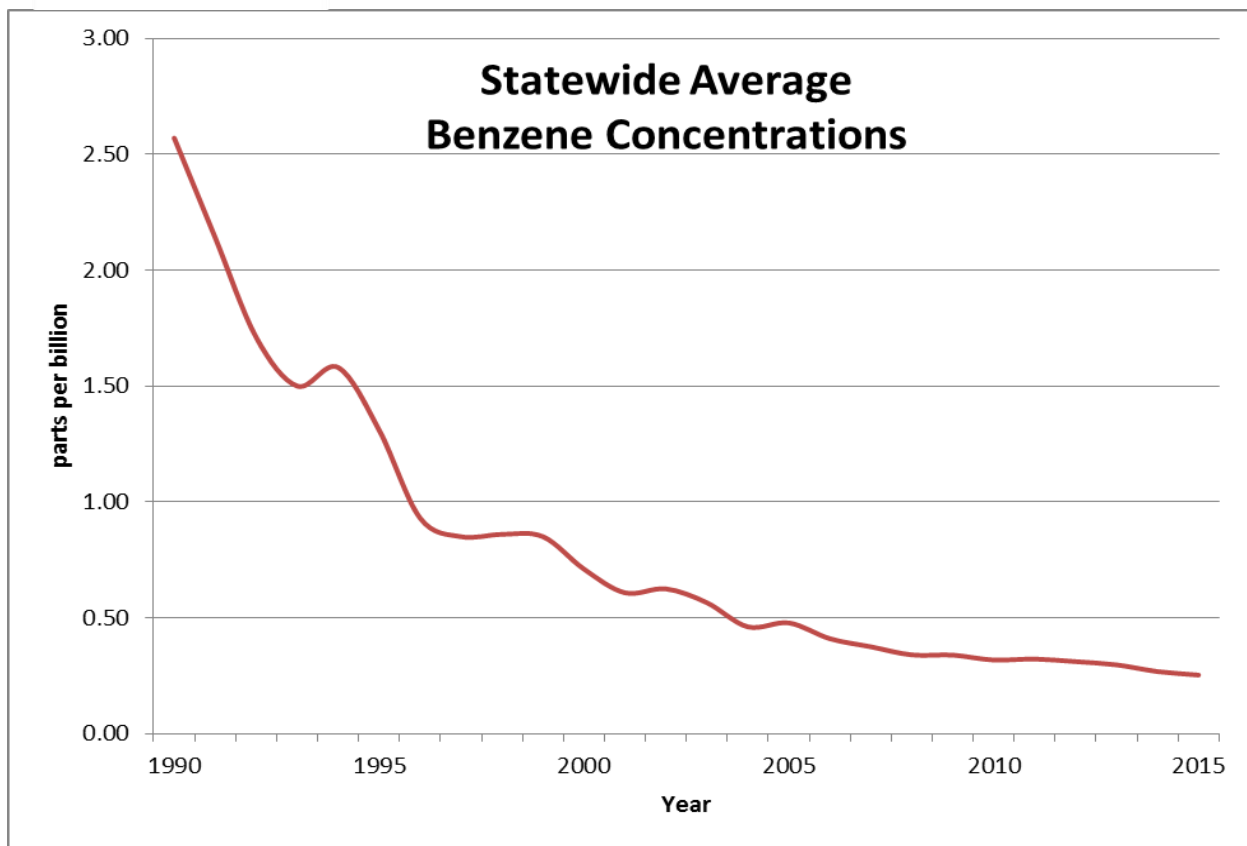
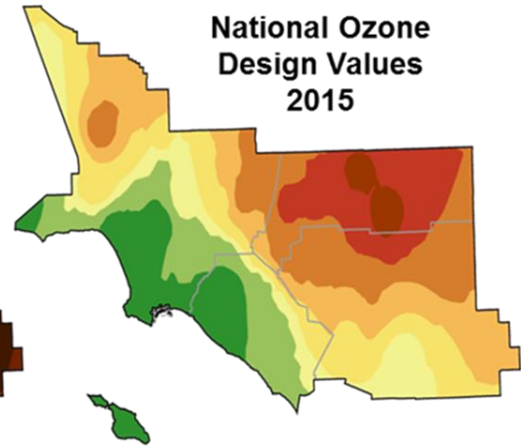
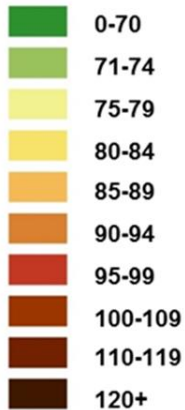


**Air District Status: U.S. EPA 1-Hour and 8-Hour (80 ppb) Ozone Standards
(based on air quality data from 2013-2015)**



South Coast 8-Hour Ozone Design Value Changes 1990 to 2015

Design Value (ppb)



Staff Recommendation: Informational Item, No Action Needed

ISSUE 3: 2017-18 CAP AND TRADE PROPOSAL

The Governor's budget proposes to spend \$2.2 billion in cap and trade auction revenue or Greenhouse Gas Reduction Funds (GGRF) on activities intended to reduce GHGs. However, \$1.3 billion would only be spent after the Legislature enacted—with a two-thirds urgency vote—legislation extending ARB's authority to operate a cap and trade program beyond 2020.

The Administration also proposes trailer bill language that would limit the applicability of certain restrictions regarding awarding grant funds to projects that reduce methane emissions from livestock manure management operations and dairy manure management operations using digester technology, as specified.

BACKGROUND

The figure below shows the \$2.2 billion expenditure plan by category of activity.

2017 18 Cap and Trade Expenditure Plan
(Dollars in Millions)

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

Source: Department of Finance

For the non-continuously appropriated funds, the Governor's plan moves away from allocating GGRF for specific programs to allocating blocks of funding for types of programs, as shown above. However, the Administration has indicated that this proposal is a starting point for discussions with the Legislature, and intends for the final Budget Act to establish specific funding amounts for specific programs. Furthermore, to manage expenditures in light of the significant revenue volatility, the budget bill control section language proposes the Director of Finance allocate the available funds quarterly on a proportional basis to the program categories. In addition, funds would not be allocated prior to the enactment of urgency legislation that confirms the Air Resources Board's authority to administer cap and trade auctions beyond 2020.

LAO COMMENTS

The LAO recently released a report on the Cap and Trade program and makes recommendations in response to three critical questions raised by the Governor's proposal:

- Should cap and trade be authorized beyond 2020?
- Is a two-thirds vote needed to extend cap and trade?
- How should the Legislature use cap and trade revenue?

Authorize Cap-and-Trade Beyond 2020 Because Likely Most Cost-Effective Approach. The LAO recommends that the Legislature authorize cap-and-trade (or a carbon tax) beyond 2020 because it is likely the most cost-effective approach to achieving the state's 2030 GHG emissions target. If the Legislature approves cap-and-trade, the LAO recommends the Legislature (1) strengthen the allowance price ceiling because there is potential for substantial price volatility associated with the lower cap and (2) provide clearer direction to ARB regarding the criteria that the board should use to determine whether complementary policies should be adopted. The LAO also recommends the Legislature continue to take steps to ensure oversight and evaluation of major climate policies by establishing an independent expert committee.

Approve With a Two-Thirds Vote to Ensure Ability to Design Effective Program. Although cap-and-trade could be extended with a simple majority vote, the LAO recommends the Legislature approve cap-and-trade (or carbon tax) with a two-thirds vote because it would provide greater legal certainty and ensure ARB has the ability to design an effective program. For example, a two-thirds vote would provide legal certainty regarding ARB's authority to auction allowances—a method for distributing allowances that is generally recommended by economists. A two-thirds vote would also allow the Legislature to remove the current requirement that cap-and-trade auction revenues can only be used on activities that reduce GHG emissions.

Broaden Allowable Uses of Revenue to Include Other Legislative Priorities. With a two-thirds vote, the LAO recommends the Legislature broaden the allowable uses of auction revenue because it would give the Legislature flexibility to use the funds on its highest priorities. The Legislature could use the funds to (1) offset higher energy costs

for households and businesses by providing tax reductions or rebates; (2) promote other climate-related policy goals, such as climate adaptation activities; and/or (3) support other legislative priorities unrelated to climate policy. The LAO believes that returning the revenue to businesses and consumers by reducing taxes or providing rebates could become a particularly important option if allowance prices—and, consequently energy costs for households and businesses—increase substantially in the future.

When finalizing its 2017-18 cap-and-trade spending plan, the LAO also recommends the Legislature:

(1) Reject the Administration’s proposed language making spending contingent on future legislation,

(2) Consider alternative strategies for dealing with revenue uncertainty, and (3) allocate funds to specific programs rather than providing DOF that authority.

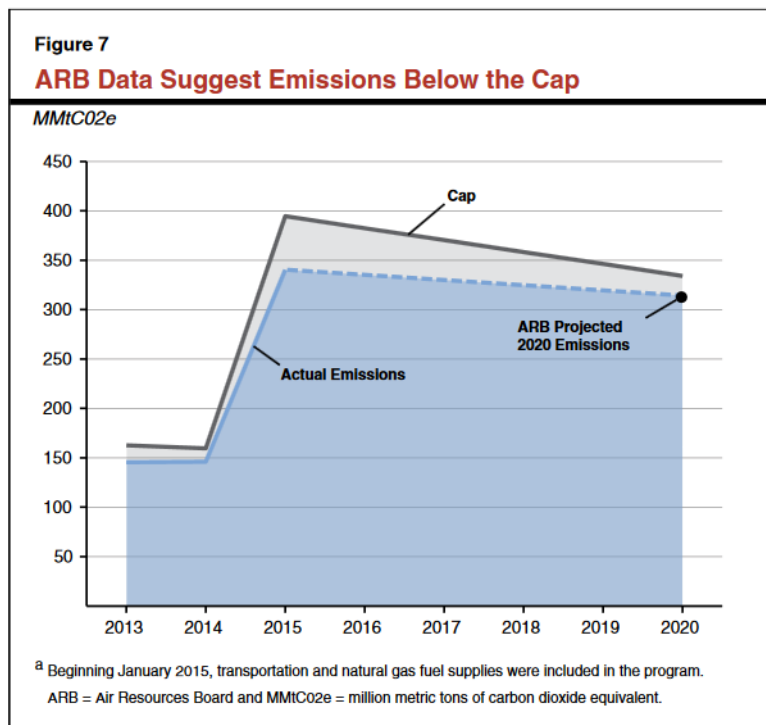
STAFF COMMENTS

Several aspects of the Cap and Trade program need to be evaluated over the upcoming months. Key questions are laid out below for the Committee’s consideration.

Is Cap and Trade Meeting the Objectives of the Program? The primary objective of the Cap and Trade program as established by the Global Warming Solutions Act of 2006, AB 32 (Núñez/Pavley, Chapter 488, Statutes of 2006) is to limit statewide GHG emissions to 1990 levels by 2020. The legislation directed ARB to adopt regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions by 2020. In 2016, Chapter 249 (SB 32, Pavley) established an additional target of reducing emissions by at least 40 percent below 1990 levels by 2030. The Legislature has adopted additional policies intended to help achieve the 2030 GHG target. Under the draft scoping plan for 2030, the Cap and Trade program could be responsible for achieve up to 40 percent of the GHG reductions. Also, it is important to note, that GGRF revenues resulting from the program are a by-product and represent pollution under the program. Therefore, ultimately, these revenues are not desirable and if they are spent on programs that achieve reductions, these should be viewed as “bonus reductions”.

As the LAO discusses in its most recent report, understanding the outcomes of the program so far can provide valuable information about the potential effects of extending the program. However, it is difficult to determine if the program is meeting its objectives because a robust study of the overall statewide effects of the Cap and Trade program has not been conducted. The LAO finds that such a study “would be complex and the data to complete the study might be somewhat limited.” In addition, emissions data is only available for the first three years of the program. The Committee may want to ask ARB and LAO how such a study might be structured and what it might cost.

The LAO goes on to make the observation that emissions being below the cap, as shown in the figure below, are likely due to factors other than the Cap and Trade program. These include lower than expected growth due to the recession and a wide variety of core climate program focuses on achieving GHG reductions. However, it is important to note that what the program has or has not achieved in the past is not necessarily an indication of what it will achieve in the future. As the 2030 target approaches and emissions must be reduced to 260 million metric tons of carbon dioxide equivalent, which is significantly below where we are today, the price of carbon will likely increase significantly and more directly result in a lower-carbon economy.



Source: Legislative Analyst's Office

What have been the Perceived or Real Missed Opportunities? In addition, to reducing GHGs, other benefits have been anticipated from the Cap and Trade program. For example, non-GHG goals of the program have included directly improving local and regional air quality, such as in disadvantaged communities near refineries. However, based on the LAO's review of the literature there is limited evidence that the Cap and Trade program has had an effect on co-pollutants such as particulate matter and nitrogen oxides.

The Committee may want to consider how to best achieve important objectives such as improving air quality. For example, rather than anticipating that the Cap and Trade program will achieve this objective, the Legislature may want to specific program elements that would ensure that air quality objectives are considered in conjunction with GHG emissions. Additionally, the Legislature may wish to ensure that other existing

programs are being fully utilized to accomplish this goal. Alternatively, it may want to consider establishing a complementary program that would help to achieve targeted air quality improvements. In addition, the Committee may want to reconsider current provisions for complying with the Cap and Trade program such as the use of offset, especially out-of-state offsets. Offsets allow emitters to buy credits for GHG reduction projects elsewhere in lieu of purchasing carbon allowances or reducing carbon emissions. The Committee may want to ask ARB if allowing for these types of offsets has minimized some of the potential positive public health impacts of GHG reduction activities in disadvantaged communities.

What Will it Take to Ensure the Program Successfully Continues Beyond 2020?

Two key factors that experts have attributed the recent decline and instability in the Cap and Trade auction revenues are uncertainty about the program beyond 2020 and an oversupply of allowances. The Governor's proposal to confirm the Air Board's authority to administer cap and trade auctions beyond 2020 with a two-thirds urgency vote would remove the program's uncertainty about continuation and use of the funds for certain expenditures. In addition, the Legislature could direct ARB to reduce the number of allowance offered at each auction and reduce the number of free allowances given to certain industries. Also, to better ensure the trading market functions optimally and remains viable, the Assembly may want to consider adding staff at ARB who are knowledgeable about how markets operate.

How Does the Legislature Want to Spend Revenue Raised by the Program?

The Governor's proposed Cap and Trade expenditure plan builds on the plan that was adopted as part of the 2016 Budget Act. Beyond the continuous appropriations for sustainable communities and clean transportation, the plan continues to make investments in the areas of short-lived climate pollutants, carbon sequestration, and energy efficiency/ renewable energy. A notable change the Administration's proposal makes is to base the expenditure plan on an estimate of the revenues to be received in 2017-18, rather than proposing expenditures based on the amount of money that is actually received, which was done for 2016-17 expenditure plan. This approach is considerably more speculative and risky given the uncertainty about the amount of revenues generated at each auction and can create instability for the programs that rely on this source funding.

About two-thirds of the total funds go to transportation-related projects, and notably under the Governor's proposal, \$500 million goes towards the Governor's transportation funding plan. In 2014, the transportation sector was responsible for 37 percent of California's total emissions. In addition, the transportation fuels sector make up an even greater percentage of the emissions subject to Cap and Trade, making it reasonable that a significant portion of the funding goes towards projects in this area. However, since transportation fuels are under the capped sector, the Legislature must focus on funding efforts that are expediting the transformation of transportation fuels to lower GHG sources, otherwise GGRF investments inadvertently may reduce the cost-effectiveness of the Cap and Trade program. Additionally to truly achieve greenhouse gas reductions in the transportation sector, the Legislature will need to identify ways to

increase the utilization and cost-effectiveness of transit and focus more on freight. Ways to increase the utilization of transit could include reducing available and low-cost parking and increasing fuel prices. Freight vehicles may also need to be further incentivized to replace vehicles with new, cleaner technology.

Other effective ways to reduce or prevent GHG emissions statewide may be less visible, but can be equally important investments such as wetlands restorations, water-use efficiency projects, and healthy forests. The proposed plan does not provide funding for wetlands restoration, which received \$29 million in the current year, and water-use efficiency, which received \$70 million in 2016-17. Previous wetlands funding has restored about 2,500 acres of wetlands throughout the state. Wetlands have among the most efficient carbon sequestration rates per unit of all habitat types. Increasing the quality and quantity of key wetlands in California will assist the state with climate change adaptation and mitigation, as well as wildlife and fisheries management and recovery. Water-use efficiency projects also have merit, but are estimated to result in fewer emission reductions and do not leverage much additional funding. In addition, ensuring that forests are healthy and well-maintained can be critical. A large forest fire can pump as much carbon dioxide into the area in a few weeks as cars do in an area in an entire year.

As funding priorities are considered for 2017-18, the Assembly will want to ensure that the programs being funded are likely to deliver desired results such as 1) the greatest long-term greenhouse gas reductions, 2) the ability to leverage other funds, 3) the demand for funding, and 4) benefits to disadvantaged communities.

Staff Recommendation: Hold Open.
