

California Legislature
Senate Committee on
Environmental Quality

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**OVERSIGHT HEARING OF THE
SENATE ENVIRONMENTAL QUALITY COMMITTEE**

BOB WIECKOWSKI, CHAIR

Wednesday, May 10, 2017

9:30 a.m.

California State Capitol, Room 3191

**California's Climate Change Market-Based Compliance Mechanism:
A Cap-and-Trade Program Post 2020**

BACKGROUND INFORMATION

Introduction

Climate change is a defining environmental challenge of our time. Caused primarily by the collective activities of carbon-intensive economies in the developed world, climate change now requires solutions that range from international treaties, structural changes in how nations and subnational states transition to new energy supplies, how the public and private sectors do business, and how individuals live their lives.

At the international level, the United Nations Framework Convention on Climate Change (UNFCCC) held a climate change conference in Paris, France in December 2015. The outcome was a voluntary agreement for nations to work to limit the emissions of greenhouse gases (GHGs) to levels that would allow an average global increase of no more than 2 degrees Celsius (°C), and with a hope to limit warming to a smaller 1.5 °C target.

Two degrees Celsius is the maximum warming threshold at which many scientists predict there will likely be major climate disruptions such as super droughts and catastrophically rising sea levels. Moreover, as articulated during the Paris meetings, many scientists estimate that a 1.5 °C warming would be far safer, albeit still risky, for the resilience of global coasts, food, water, and other environmental systems on which humans rely. Even if humans can manage to limit both short- and long-term warming to this lesser level, some ecosystems, such as coral reefs and many alpine and higher latitude polar zones, already appear to be highly stressed and are likely to be largely lost with future incremental climate changes.

California is also impacted by the widespread effects of climate change, including decreased snowpack in the Sierra Nevada during the recent and future droughts, expected sea level rise between 17 and 66 inches by 2100, worsening heat islands, and more frequent extreme fires, droughts, and floods that will affect California's infrastructure, like the recent Oroville Dam incident.

Although the current international emission reduction pledges fall short of what is needed for a 2 °C warming limit, let alone 1.5 °C, the Paris Accords include an expectation and mechanism for countries to increase their commitments every five years, and the agreement was largely viewed as a critical first step in bringing the vast majority of countries together to agree to act to combat climate change.

This document includes a brief summary of the international context for California's efforts on climate change, the state's suite of policies aimed at reducing GHG emissions, and the future of California's climate change market-based compliance mechanism known as cap-and-trade.

Environmental Quality and Public Health Impacts of a Changing Climate

Higher Temperatures and Air Quality.

Climate change is already causing higher temperatures state-wide, and more frequent and hotter days will lead to worse air quality through increased amounts of ground-level pollutants such as ozone. An analysis of power plants in California showed a 3% increase in NO_x emissions per degree Fahrenheit increase in daily temperature (Drechsler et al., 2006). This is due to a variety of factors, including increased energy use for things like running indoor air conditioning systems.

Higher temperatures and heat waves also increase heat-related illness and death, including 650 deaths in California during the heat wave in 2006. Heat waves also directly lead to immediate public health concerns, particularly for those people without either access to air conditioning or enough money to pay for running an air conditioner even if they have access to one.

Extreme events, such as wildfires, can affect air quality by leading to increased concentrations of Particulate Matter (PM), which has been linked to premature death in people with heart and lung disease, as well as aggravating asthma and respiratory symptoms. Scientific modeling has predicted 12-53% increase in large California wildfires by 2100 (Westerling and Bryant, 2006).

Water Quality.

In many regions, hydrological systems are being altered by changes in precipitation and snow pack. Reductions in the Sierra Nevada snowpack are expected from higher temperatures, leading to diminished water reserves. Because of these dwindling water reserves, groundwater pumping may continue to increase and result in an increased concentration of pollutants in drinking water.

For example, nitrate contamination of drinking water, already an acute problem in many areas in the Central Valley, may be further exacerbated, resulting in a much higher fraction of residents who are not able to drink water safely from their tap.

Though overall rain amounts will be reduced, rainfall events are expected to be more extreme, which can overwhelm sewage and water treatment facilities, resulting in decreased water quality.

In coastal areas, rising sea levels can lead to increased salinity in coastal aquifers. Higher salinity of water has reduced usability for both drinking water and agricultural purposes, and desalination procedures are energy-intensive and costly.

Infectious and Vector-borne Diseases and Public Health Impacts.

Climate change can further lead to public health impacts by facilitating disease spread and exacerbating chronic health conditions. Already, California has seen an increase in the length of the growing season and pollen production amounts of ragweed, a common cause of severe seasonal allergies.

Increased temperatures can promote bacterial contamination in foods and lead to increases in harmful algal blooms that have been tied to skin, gastrointestinal, respiratory, and neurological signs and symptoms.

Reductions in the number and sizes of recreational bodies of water due to decreased rainfall can further lead to increased concentration of pollutants and bacterial contaminants from more users in fewer and smaller areas.

There is concern about the spread of vector-borne diseases, as the distribution of vectors (e.g. ticks, mosquitoes) carrying pathogens spread into new habitats as regional climates change. Droughts, which will increase with climate change, can also favor mosquito breeding because streams that would normally be flowing become a series of stagnant pools in which mosquitoes breed. For example, previous research has shown that human outbreaks of the mosquito-transmitted Saint Louis encephalitis are correlated with periods of several days when the temperature exceeds 30°C (95°F), as has been the case in previous California epidemics (Githeko et al. 2000).

In addition to expanding habitats, hot temperatures also facilitate the spread of West Nile Virus (WNV) by speeding up both the replication of the virus and the development of the mosquito that carries it. Mosquitoes digest blood meals more rapidly at higher temperatures, leading them to feed more often.

Impacts on Agriculture.

In addition to the effects of drought and severe weather events, climate change can further threaten food production and quality by facilitating diseases spreading to crops from vectors and pests. Combating these threats to food security will likely

require increased use of pesticides and fertilizers, which leads to increased GHG emissions and concerns about human health and water quality from runoff and drift. In times of food insecurity and rising prices, people turn to nutrient-poor, calorie-rich foods with health impacts including malnutrition and obesity.

International Efforts to Address Climate Change

In the late 1980s, nations around the world recognized the potential for widespread, human-induced disruptions to the climate, and began to develop a cooperative, international framework to limit global temperature increases. In 1994, the first major step was the formation of the United Nations Framework Convention on Climate Change (UNFCCC), an international treaty that set a goal of stabilizing greenhouse gas concentrations to prevent substantial climate change. Over the next two decades, the international community sought to establish legally binding actions that countries could take to limit greenhouse gas emissions. Early negotiations culminating in the Kyoto Protocol in 1997 focused on developed countries that were major GHG emitters. Subsequent climate change conferences in Bali, Copenhagen, and Cancun, tried to include developing countries—such as China and India, which have large emerging economies—into legally binding emissions reduction targets.

Subnational Global Climate Leadership Memorandum of Understanding (Under 2 MoU)

In addition to the negotiations at the national level, subnational governments have also taken a leadership role in climate change policy. Governor Brown and California have led the way by establishing the *Under 2 MoU*. What started as an agreement between California and Baden-Württemberg in Germany now includes 123 jurisdictions that account for one quarter of the world's Gross Domestic Product (GDP). Subnational governments that sign on to *Under 2 MoU* pledge to reduce GHG emissions 80-95%, or 2 metric tons carbon-dioxide-equivalent (MTCO₂E) per capita, by 2050.

2015 Paris Climate Conference

As the subnational governments continued to increase their cooperation through the *Under 2 MoU* in Paris, the 2015 Paris Climate Change Conference culminated in commitments from nearly all nations to reduce GHG emissions to combat climate change—the first time all nations agreed to take action in some form or another. Each nation submitted a plan that outlined their strategy to reduce GHG emissions through 2025 or 2030. The plans varied in scope and no legally binding emission reductions were established. However, each nation is legally obligated to progressively increase the stringency of their climate change policies in the future. Starting in 2020, countries will reconvene every five years to report on their emission reductions to date, and to update their emission reduction plans.

California’s Climate Change Policies

Within the United States (US), California is the leader for environmental policy. Since the late 1960s, California has implemented a series of policies to reduce its air pollution, diversify energy and fuels, and catalyze relevant technological innovation. This has continued into the era of global climate change, where the nation has, until recently, lagged most developed countries in developing national policies to address the environmental and human consequences of rising emissions of GHGs.

In contrast, over the last 20 years, California has developed a series of its own policies and legislation to address its carbon footprint and associated pollution, most notably AB 32 (Núñez and Pavley, Chapter 488, Statutes of 2006), which required ARB to determine the 1990 statewide GHG emissions level and approve a statewide GHG emissions limit that is equivalent to that level, to be achieved by 2020, and to adopt GHG emissions reductions measures by regulation, and SB 32 (Pavley, Chapter 249, Statutes of 2016) which requires ARB to ensure that statewide GHG emissions are reduced to at least 40% below the 1990 level by December 31, 2030 (known as the SB 32 cap).

Other important measures reduced GHG emissions associated with cars, established and modified the state’s renewable portfolio standard, established a GHG emissions performance standard for baseload electricity generation (effectively eliminating

coal-derived power in California), incorporated climate change mitigation in regional transportation planning, focused climate change spending priorities in disadvantaged communities, required ARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants, incentivized low- and zero-emission vehicles and trucks, and increased building and energy efficiency standards.

Implementing AB 32: The California Global Warming Solutions Act of 2006

In addition to calling on the Air Resources Board (ARB) to inventory greenhouse gasses (GHGs) in California (including carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride) and approve a statewide GHG emissions limit, to be achieved by 2020, equivalent to the level of 1990 emissions, AB 32 (Núñez, Pavley, Chapter 488, Statutes of 2006) also requires ARB to (1) implement regulations that achieve the maximum technologically feasible and cost-effective reduction of GHG emissions, (2) identify and adopt regulations for discrete early-action measures, and (3) prepare and approve a Scoping Plan, to be updated every five years, to achieve the maximum technologically feasible and cost-effective reduction of GHG emissions by 2020.

The statute also specifies that ARB *may* include market-based compliance mechanisms. The Legislature defined “market-based compliance mechanism” as either (1) “a system of market-based declining annual aggregate emissions limitations for sources or categories of sources that emit greenhouse gases”, or (2) “greenhouse gas emissions exchanges, banking, credits, and other transactions, governed by rules and protocols established by the state board, that result in the same greenhouse gas emission reduction, over the same time period, as direct compliance with a greenhouse gas emission limit or emission reduction measure adopted by the state board pursuant to this division.”

The Legislature further specified that prior to the inclusion of any market-based compliance mechanism in the regulations, the ARB was required to (1) “consider the potential for direct, indirect, and cumulative emission impacts from these mechanisms, including localized impacts in communities that are already adversely impacted by air pollution,” (2) “design any market-based compliance mechanism to prevent any increase in the emissions of toxic air contaminants or criteria air

pollutants,” and (3) “maximize additional environmental and economic benefits for California, as appropriate.”

The cap-and-trade program was recommended in the Scoping Plan as a central approach to flexibly and iteratively reduce emissions over time. Pursuant to legal authority under AB 32, ARB adopted cap-and-trade regulations and those regulations were approved on December 13, 2011.

Beginning on January 1, 2013, the cap-and-trade regulation sets a firm, declining cap on total GHG emissions from sources that make up approximately 85% of all statewide GHG emissions. Sources included under the cap are termed “covered” entities. The cap is enforced by requiring each covered entity to surrender one “compliance instrument” for every emissions unit (i.e., metric ton of carbon dioxide equivalent or MTCO₂e) that it emits at the end of a compliance period.

Over time, the cap declines, resulting in GHG emission reductions. Two forms of compliance instruments are used: allowances and offsets. Allowances are generated by the state in an amount equal to the cap and may be “banked” (i.e., allowing current allowances to be used for future compliance). An offset is a credit for a real, verified, permanent, and enforceable emission reduction project from a source outside a capped sector (e.g., a certified carbon-storing forestry project). Offsets may be used to satisfy up to 8 percent of a covered entity’s compliance obligation. Some fraction of allowances are allocated freely to covered entities, a small portion is set aside as part of an allowance price-containment reserve, and the rest is auctioned off quarterly.

Free allowances and offsets have been controversial and have been criticized for reducing the effectiveness of the cap-and-trade mechanism in achieving AB 32 goals. While covered entities have argued—including in pending litigation—that all of the allowances should be free, others have argued that emitters should be required to pay for polluting California’s air and the global climate.

Offsets reduce the cost of compliance, which may reduce the effectiveness of cap-and-trade. Although offsets are capped and must meet the condition of additionality (i.e., a reduction is only additional if it would not have occurred without the financial

incentive provided by the offset credit), critics often cite that the carbon sequestered in trees is not permanently sequestered and can be easily released in forest fires, so reforestation is an illegitimate application of additionality.

Putting a Price on Carbon

Unpriced carbon dioxide, and other greenhouse gas, emissions are what economists call an “externality,” meaning GHGs are a side effect or consequence of an industrial or commercial activity that affects other parties without this being reflected in the cost of the goods or services involved. A price on GHG emissions forces the true cost of the emissions (whether in regard to climate change, public health, etc.) to be realized by the industry and the consumer creating the climate pollution.

One quantification for the externality of carbon dioxide emissions is the Social Cost of Carbon (SCC). The SCC is a price tag for the long-term damage done by a ton of carbon dioxide emissions in a given year. This dollar figure also includes the value of damages avoided for emission reductions.

The SCC is meant to be a comprehensive estimate of climate change damages and includes changes in net agricultural productivity, human health, property damages from increased flood risk, and changes in energy system costs, such as reduced costs for heating and increased costs for air conditioning. However, there is no consensus yet on what should be accounted for in the SCC.

Despite this, the federal Environmental Protection Agency (EPA) and other federal agencies have made estimates for the SCC that they use to determine the climate impacts of rulemakings.

The estimates for SCC increase over time because future emissions are expected to produce larger incremental damages as physical and economic systems become more stressed in response to greater climatic change, and because GDP is growing over time and many damage categories are modeled as proportional to gross GDP.

Below are SCC estimates published by the federal EPA. The discount rate in the columns can be thought of as the interest rate for the cost of the impacts from carbon

dioxide. Depending on the discount rate, the exact value for which lacks consensus in the scientific community, changes the SCC greatly.

Discount Rate and SCC			
Year	5%	3%	2.5%
2015	\$11	\$36	\$56
2020	\$12	\$42	\$62
2025	\$14	\$46	\$68
2030	\$16	\$50	\$73
2035	\$18	\$55	\$78
2040	\$21	\$60	\$84
2045	\$23	\$64	\$89
2050	\$26	\$69	\$95

The federal EPA does not currently include all of the important physical, ecological, and economic impacts of climate change recognized in the climate change literature because of a lack of precise information on the nature of damages, and because the science incorporated into these models naturally lags behind the most recent research.

Of note, the SCC is not necessarily an appropriate dollar figure to use for the cost of other GHGs, such as methane and nitrous oxide.

Use of Cap-and-Trade Auction Revenue

Since November 2012, ARB has conducted eight California-only and nine joint California-Québec cap-and-trade auctions. To date, \$3.4 billion has been appropriated by the Legislature to 12 state agencies that have distributed \$1.2 billion to projects that have been completed or are under way.

State law specifies that the auction revenues must be used to facilitate the achievement of measurable GHG emissions reductions and outlines various categories of allowable expenditures. Statute further requires the Department of Finance, in consultation with ARB and any other relevant state agency, to develop a three-year investment plan for the auction proceeds, which are deposited in the GGRF. ARB is required to develop guidance for administering agencies on reporting

and quantifying methodologies for programs and projects funded through the GGFR to ensure the investments further the regulatory purposes of AB 32.

Proceeds from cap-and-trade auctions provide an opportunity for the state to invest in projects that help California achieve its climate goals and provide benefits to disadvantaged communities. Several bills in 2012, one in 2014, and one in 2016 provide legislative direction for the expenditure of auction proceeds including SB 535 (de León, Chapter 830, Statutes of 2012), AB 1532 (J. Pérez, Chapter 807, Statutes of 2012), SB 1018 (Committee on Budget and Fiscal Review, Chapter 39, Statutes of 2012), SB 862 (Committee on Budget and Fiscal Review, Chapter 36, Statutes of 2014), and AB 1550 (Gomez, Chapter 369, Statutes of 2016).

These statutes also require a state agency, prior to expending any money appropriated to it by the Legislature from the fund, to prepare a description of 1) proposed expenditures, 2) how they will further the regulatory purposes of AB 32, 3) how they will achieve specified greenhouse gas emission reductions, 4) how the agency considered other objectives of that act, and 5) how the agency will document expenditure results.

Fees versus Taxes: Legal Consideration of Cap-and-Trade Auction Revenues

Regulatory fees established prior to 2010 (due to Proposition 26) are subject to the *Sinclair Paint* test, which helps determine whether a levy is a fee or a tax.

Sinclair Paint Co. v. State Board of Equalization, 15 Cal. 4th 866 (1997) considered the legitimacy of a fee levied to support the implementation of the Childhood Lead Poisoning Prevention Act, which provided evaluation, screening, and medical follow-up services to children at risk of lead poisoning. The program was entirely supported by fees imposed on former and current manufacturers of lead or products containing lead, based on the manufacturers “market share” responsibility for the contamination. The California Supreme Court in *Sinclair Paint* found that a levy is a legitimate fee as long as the revenue of the levy does not exceed the costs of the regulatory activity and the levy is not imposed for an unrelated revenue purpose, and the levy allocated to the payer bears a fair or reasonable relationship to the payer’s burdens on or

benefits from the regulatory activity. The *Sinclair Paint* test is a two-part test: 1) nexus and 2) proportionality.

Nexus. The *Sinclair Paint* nexus test, which is derived from the case above, requires that a clear nexus must exist between an activity for which a fee is used and the adverse effects related to the activity on which that fee is levied. In order to use the locally imposed motor vehicle fees to pay for remediation of air pollution harm *created by motor vehicles*, it appears that the funds should be used only to decrease the emissions or the harms directly caused by motor vehicles.

Proportionality. The *Sinclair Paint* test also has a proportionality component, which requires those burdened with the fee proportionally benefit from the fee – if assessing a fee to reduce emissions from motor vehicles and motor vehicles are the only item assessed the fee, then 100% of those funds are from motor vehicles. However, not all of the revenue from the fee is used to fund motor vehicle projects. Some of those funds are used to pay for reducing emissions from non-motor vehicle sources, such as locomotives and stationary agriculture equipment, which are not assessed a motor vehicle fee.

The 2012-13 Budget analysis of cap-and-trade auction revenue by the Legislative Analyst's Office (LAO) noted that, based on an opinion from the Office of Legislative Counsel, the auction revenues should be considered “mitigation” fee revenues, subject to the *Sinclair Paint* test. The LAO concluded, based on the opinion, that in order for their use to be valid as mitigation fees, revenues from the cap-and-trade auction must be used to mitigate GHG emissions or the harms caused by GHG emissions.

In 2012, the California Chamber of Commerce filed a lawsuit against the ARB claiming that cap-and-trade auction revenues constitute illegal tax revenue. In November 2013, the superior court ruling declined to hold the auction a tax, concluding that it is more akin to a regulatory fee. In February of 2014, the plaintiffs filed an appeal with the 3rd District Court of Appeal in Sacramento. Arguments were heard before the Appellate Court in January of 2017.

On April 6, 2017, the appellate court issued a ruling that again declined to hold that the cap-and-trade auctions are a tax.

Third Appellate Court District Ruling

The appellate court ruled that ARB did not exceed its authority in creating the cap-and-trade program, stating that “the Legislature gave broad discretion to the Board to design a distribution system, and a system including the auction of some allowances did not exceed the scope of legislative delegation. Further, the Legislature later ratified the auction system by specifying how to use the proceeds derived therefrom.”

The appellate court also stated clearly “that the auction sales do not equate to a tax” explaining that “the hallmarks of a tax are: 1) that it is compulsory; and 2) that the payor receives nothing of particular value for payment of the tax, that is, the payor receives nothing of specific value for the tax itself. Contrary to plaintiffs’ view, the purchase of allowances is a voluntary decision driven by business judgments as to whether it is more beneficial to the company to make the purchase than to reduce emissions ... these twin aspects of the auction system, voluntary participation and purchase of a specific thing of value, preclude a finding that the auction system has the hallmarks of a tax.”

Going further than the superior court, the appellate court also found that “the purchase of emissions allowances, whether directly from the Board at auction or on the secondary market, is a business driven decision, not a governmentally compelled decision [and] unlike any other tax ... the purchase of an emissions allowance conveys a valuable property interest—the privilege to pollute California’s air—that may be freely sold or traded on the secondary market.”

As a result, the appellate court found that “the *Sinclair Paint* test is not applicable [to the cap-and-trade program], because the auction system is unlike other governmental charges that may raise the “tax or fee” question resolved thereby. The system is the voluntary purchase of a valuable commodity and not a tax under any test.”

Budget Allocations

SB 862 (Committee on Budget and Fiscal Review, Chapter 36, Statutes of 2014) established a long-term cap-and-trade expenditure plan by continuously appropriating portions of the funds for designated programs or purposes. The legislation appropriates 25% for the state's high-speed rail project, 20% for affordable housing and sustainable communities grants, 10% to the Transit and Intercity Rail Capital Program, and 5% for low-carbon transit operations. The remaining 40% is available for annual appropriation by the Legislature.

The Governor's 2017-18 proposed budget proposes the following \$2.2 billion expenditure plan: (1) \$900 million continuously appropriated for state transit assistance (\$75 million), transit and intercity rail (\$150 million), the Sustainable Communities Strategy (\$300 million), and the state's high-speed rail project (\$375 million), and; (2) \$1.3 billion in discretionary funding for a variety of projects. This includes \$500 million for the Governor's transportation package and \$363 million for the Air Resources Board's Low Carbon Transportation Program, as well as \$392 million for a variety of other greenhouse gas reducing programs.

The Governor's 2017-18 proposed budget makes the aforementioned funding contingent on the Legislature reauthorizing ARB to utilize a market-based compliance mechanism (specifically, referencing a cap-and-trade program) beyond 2020 **with a two-thirds vote**.

Options Post 2020

As noted in the "California's Climate Change Policies" section, the Legislature has required ARB to ensure that statewide GHG emissions are reduced to at least 40% below the 1990 level by December 31, 2030 (known as the SB 32 cap). The question that arises is how California will achieve those targets.

First, the Legislature could choose to do nothing. Because ARB's authority to administer the current cap-and-trade program expires on December 31, 2020, if the Legislature does nothing then the current cap-and-trade program ends on that date and ARB would be required to adopt command-and-control regulations disfavored by

industry in order to achieve the 2030 emissions reduction goal. Furthermore, the transportation and energy sectors would have to undergo substantial changes in order for the state to achieve that level of GHG emission reductions, and there would have to be scientific breakthroughs in the next decade that do not seem to be on the horizon. Most economists and industry experts believe that this option is a more expensive compliance pathway because, for example, energy and gas prices will skyrocket and that will directly hurt both businesses and consumers.

Second, the Legislature could decide to approve legislation that simply reauthorizes ARB to continue to utilize market-based compliance mechanisms through 2030, or indefinitely. With this option, the deficiencies remain unfixed and those aspects of the current cap-and-trade program that have been criticized on numerous occasions, such as free allowances and offsets credits, will almost certainly continue. Additionally, as the cost of carbon continues to increase, the program's lack of flexibility will not help the state accommodate impacts to consumers and industry, nor will it help move the state forward with its climate-related scientific research and development needs and infrastructure needs.

Third, the Legislature could choose to approve some other form of climate change pricing policy, such as a carbon tax, or the Legislature could choose to approve legislation that reauthorizes ARB to administer a market-based compliance mechanism, specifically a cap-and-trade program, but specify in statute how it wants ARB to structure the program.

Current Proposals

Currently there are four proposals to extend ARB's authority for a cap-and-trade program post 2020.

AB 151 (Burke, Cooper) authorizes ARB to utilize market-based compliance mechanisms through December 31, 2030 and creates the Compliance Offsets Protocol Task Force for the purpose of providing guidance to ARB for new offset protocols under a market-based compliance mechanism with a priority on the development of new urban offset protocols and a multi-tiered incentive system for

compliance offset credits. AB 151 is pending in the Assembly Appropriations Committee.

AB 378 (C. Garcia, Holden, E. Garcia) authorizes ARB to utilize market-based compliance mechanisms through December 31, 2030 and integrates specified air quality performance requirements into the program, including no-trade zones or facility-specific declining GHG emissions limits, and prohibits facilities that do not meet the specified air quality standards from being allocated allowances. AB 378 is on the suspense file in the Assembly Appropriations Committee.

SB 775 (Wieckowski) would require ARB to adopt regulations for a cap-and-trade program post 2020 that would prohibit free allowances and offsets, prohibit allowance banking, put a price ceiling and floor on the cost of allowances that changes predictably over time, and establish an Economic Competitiveness Assurance Program to protect trade-impacted industries in the state and reduce leakage. SB 775 would also establish the California Climate Infrastructure Fund meant to assist the state and local communities to adjust to the changing environment, California Climate Dividend Fund to provide money directly to all Californians on a quarterly basis, and the California Climate and Clean Energy Research Fund to fund scientific research. SB 775 is pending in the Senate Environmental Quality Committee.

As noted in the “Budget Allocations” section, the Governor’s 2017-18 proposed budget proposes the following \$2.2 billion expenditure plan: (1) \$900 million continuously appropriated for state transit assistance (\$75 million), transit and intercity rail (\$150 million), the Sustainable Communities Strategy (\$300 million), and the state’s high-speed rail project (\$375 million), and; (2) \$1.3 billion in discretionary funding for a variety of projects. This includes \$500 million for the Governor’s transportation package and \$363 for the Air Resources Board’s Low Carbon Transportation Program, as well as \$392 million for a variety of other greenhouse gas reducing programs.

The Governor’s 2017-18 proposed budget makes the aforementioned funding contingent on the Legislature reauthorizing ARB to utilize a market-based

compliance mechanism (specifically, referencing a cap-and-trade program) beyond 2020 with a two-thirds vote.

Conclusion

Given that California is committed to reducing its GHG footprint for the betterment of the state, and that the Legislature and Governor have approved a statewide cap on GHG emissions via SB 32, the imperative question now is which tools are needed post 2020 in order to achieve our goals.

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