

The Road to 2020 and Beyond

March 17, 2015

Testimony

Introduction

Good Afternoon, Chair Beall, Chair Wieckowski, and Members of the Committees. It is a pleasure to be here today.

California's transportation sector accounts for about half of the State's greenhouse gas emissions when you consider emissions from the production and use of transportation fuels. Transportation is also the primary source of smog-forming and toxic air pollution.

Comprehensive actions to reduce emissions from vehicles and fuels are a critical aspect of reaching the 2020 target established in AB 32, and will have significant co-benefits for air quality and public health. Policies to reduce emissions focus on three aspects of transportation: vehicles, fuels, and land use. Between 2010 and 2020, the State's vehicle, fuels, and land use policies account about half of the reductions needed to reach the 2020 target.

Today I will provide an update on some of our key measures in the transportation sector, organized by these three focus areas. A more detailed description of ARB's transportation measures are included in the handout we provided to the committees.

Vehicle Policies

Starting with the State's policies to reduce emissions from vehicles, today, cars and light-duty trucks are 99 percent cleaner than they were in the 1970s. We are on track to meet our goal of 1.5 million zero emission vehicles by 2025 and are investing in the infrastructure necessary to support a growing fleet of battery electric and fuel cell vehicles. In addition to reducing greenhouse gases, this means improvement in air quality, significant reductions in oil use, and avoided fuel costs for consumers.

In 2012, ARB approved the Advanced Clean Cars program, developed through collaboration with the U.S. EPA and the National Highway Traffic Safety Administration. This program lays the foundation for the next generation of ultra-clean vehicles. The program builds on the standards

adopted pursuant to AB 1493 by Senator Pavley, and includes more stringent greenhouse gas emission standards, tighter criteria pollutant standards, and increased production requirements for zero emission vehicles.

The program is designed to cut greenhouse gas emissions from new passenger vehicles in 2025 by half, compared to today's vehicle mix. Because of the technology-forcing nature of the standards and California's commitment to a national program, we are currently in the process of conducting a mid-term review of the standards for model years 2022 to 2025 in collaboration with U.S. EPA and the National Highway Traffic Safety Administration. This review will be used to inform whether ARB and the federal agencies maintain the standards as adopted or consider revising them.

For heavy-duty trucks, in 2013, ARB approved Phase 1 greenhouse gas emission standards to align with the federal Phase 1 Regulation, adopted by U.S.EPA in 2011. ARB's action provides nationwide consistency for engine and vehicle manufacturers, and allows ARB to enforce the requirements. The Phase 1 standards set the stage for the next round of more stringent greenhouse gas standards, referred to as Phase 2, which President Obama called for a year ago and that U.S. EPA and the National Highway Traffic Safety Administration will be proposing in the coming months. Recent technical analyses indicate that by 2025, the combined Phase 1 and 2 programs could cut fuel consumption and greenhouse gas emissions by at least 40 percent compared to 2010 levels. Cleaning up the heavy-duty fleet in California will be necessary to reduce greenhouse gas emissions and meet federal air quality standards, and we will be working with U.S. EPA to ensure that this standard captures all available, cost-effective opportunities to reduce emissions, increase efficiency, and save fuel.

Fuels Policies

In addition to reducing emissions from vehicles, we also focus on fuels. California's Low Carbon Fuel Standard targets fuels by requiring a reduction in the carbon intensity of transportation fuels by 10 percent in 2020. There is a range of clean fuels – which are already available today -- that will enable us to meet this goal and push even further beyond 2020. Fuels like hydrogen, electricity, renewable natural gas and diesel, and

clean biofuels are already supplying California's market in response to the Low Carbon Fuel Standard, and more projects are poised to come online in the future. This year the Board is considering a rulemaking to readopt the Low Carbon Fuel Standard to address procedural deficiencies in the way the original regulation was adopted. We have been using this opportunity to enhance the regulation, including incorporating a cost containment mechanism.

In addition to our efforts in California, British Columbia has a Low Carbon Fuel Standard, the Governor of Oregon just signed legislation to extend its low carbon fuel standard, and we are working with Washington in its efforts to adopt a similar program. These programs will further expand the market for clean, low-carbon fuels.

Finally, transportation fuels are covered in the Cap-and-Trade program starting this year, which puts all fuels on an equal footing relative to their carbon content.

Transportation Planning

In addition to fuels and vehicles, we need to take a broader look at our transportation systems as a whole and make them more efficient, provide greater mobility options, and provide for greater growth and connectivity in the state.

Under Senate Bill 375, progress is already being made to plan and implement more sustainable communities. In 2010, ARB approved per-capita passenger vehicle greenhouse emission reduction targets for 2020 and 2035 for each of the 18 federally designated Metropolitan Planning Organizations in California. The goal of SB 375 is to encourage regional planning that integrates land use and transportation in a way that reduces greenhouse emissions associated with driving passenger vehicles. This year we are undertaking a process to update the greenhouse gas reduction targets for regions subject to SB 375.

In addition to moving people more efficiently, we must take steps in California to optimize the way we move goods and freight within and through the state. As home to several major ports and hubs for international goods movement, we reap tremendous economic benefits from our goods movement system. Unfortunately, we also suffer from the

significant environmental impacts that inefficient or dirty technologies create. We can't accommodate needed growth in our goods movement systems with the strategies and technologies of the past.

To address this challenge, ARB is working with other state partners like the California Transportation Agency – as well as with local and regional partners – to develop and implement a Sustainable Freight Strategy. The Sustainable Freight Strategy is an integrated plan intended to identify strategies to transform the sector to zero emission technologies. This is a major undertaking that will require a range of policy, regulatory and incentive-based tools. ARB will release a draft document later this spring that will identify both regulatory and voluntary levers to reduce emissions and pave the way a zero/near-zero freight system.

Emission Reductions from Transportation Measures

What do these measures mean for greenhouse gas reductions by 2020 and beyond? I am pleased to report that we are on track to meet the 2020 target. Furthermore, these efforts will provide ongoing emission reduction benefits beyond 2020. Together, current programs are estimated to further reduce greenhouse gas emissions approximately 15 percent between 2020 and 2035. After 2035, however, without additional actions greenhouse gas emissions from the transportation sector are projected to increase slightly as our State's population and economy grow through 2050.

Thus, successfully achieving the State's 2050 greenhouse gas target of 80 percent below 1990 levels will continue to require further reductions in the transportation sector. These efforts will need to include a broad range of advanced technologies, cleaner fuels, and sustainable community land-use strategies. The Phase 2 greenhouse gas standards for heavy-duty vehicles that I mentioned earlier and the Governor's goal to reduce petroleum consumption by up to 50 percent by 2030 will be critical for California to continue the momentum toward achieving the State's climate goals and to ensure attainment of federal ozone and particulate matter standards.

GGRF and Low Carbon Transportation Funds

I'll turn now to talk about Cap-and-Trade auction proceeds. To date, ARB has held 10 successful auctions. Auction proceeds deposited in the

Greenhouse Gas Reduction Fund have totaled about \$1.6 billion.

The investment of auction proceeds will further reduce greenhouse gas emissions in support of the State's AB 32 goals. This year, we will see auction proceeds invested across a range of important programs that will benefit California's communities, including advancing our goals for the transportation sector. We are investing in incentives to support markets for the cleanest vehicles; we're supporting improved transit networks and enhanced mobility choices in local communities; and we're helping to bring the most advanced and cleanest heavy-duty vehicle technologies to market. These investments will deliver significant benefits to California's most disadvantaged communities.

The \$200 million appropriation that ARB received for Low Carbon Transportation in the 2014-15 Budget is being invested in a mix of projects that reduce greenhouse gas emissions, benefit disadvantaged communities, promote the use of clean fuels and technologies, and support the market transition to zero and near-zero emission vehicles. Given the need for steep reductions in air pollution to achieve federal and state air quality standards, it is important that our investments have benefits for both climate and air quality. This is a key principle underlying all of our investment decisions.

The second handout I provided describes how we allocated the \$200 million for the 14-15 fiscal year. At least half of the \$200 million will be directed toward benefiting disadvantaged communities, ensuring that we expand use of the cleanest vehicles and technologies in California's most impacted regions.

Incentive funding is a critical tool for achieving emission reductions, and complement the regulatory efforts that I described earlier. These funds will support the Administration's goal to deploy 1.5 million zero emission vehicles in California by 2025, and reduce petroleum consumption by up to 50 percent by 2030. We reached a key milestone in 2014 with the one hundred thousandth ZEV sold in California – due in no small part to these programs and the corresponding infrastructure support provided by the California Energy Commission.

While implementing the 2014-15 Funding Plan, we are also in the process of developing the 2015-16 Funding Plan for the \$200 million Low Carbon Transportation funds and the \$23 million Air Quality Improvement Program

funds in the Governor's January budget proposal. We will address the requirements of both SB 1275 and SB 1204 in this funding plan, which will be considered by our Board on June 25th.

SB 1275 establishes the Charge Ahead California Initiative with the goals of placing one million zero and near-zero emission vehicles in California by 2023 and increasing access to these vehicles by lower-income consumers and consumers in disadvantaged communities. SB 1275 requires ARB to limit consumer eligibility for CVRP based on income, ensure that CVRP rebate levels can be phased down, consider conversion to a point of sale model, and conduct various planning and technology assessment activities aimed at identifying the multi-year funding need, among other provisions. We will propose income limits for CVRP as part of this year's Funding Plan. We intend to workshop potential approaches later this month. SB 1275 acknowledges that the long-term planning and technology assessment will take some time, and directs ARB to incorporate this into our 2016-17 Funding Plan. We have research underway to inform this assessment.

SB 1275 also directs ARB to establish projects to increase access to clean transportation for lower-income consumers and disadvantaged communities. To that end, we are developing four projects that represent innovative, new approaches to getting zero emission technologies into disadvantaged communities, and we are excited about the potential to increase access to cleaner technologies. These four projects include:

- Higher CVRP rebates for public fleets to purchase zero emission and plug-in hybrid light-duty vehicles that operate in and near disadvantaged communities. This project launched in February.
- Car sharing and mobility improvement projects to increase the use of plug-in hybrid and zero emission vehicles in and benefiting disadvantaged communities. A competitive solicitation is open now, and we will award funding in May.
- Vehicle Retirement and Replacement "Plus Up," which provides an additional incentive amount above the base incentive under the Enhanced Fleet Modernization Program (i.e., car scrap) for lower-income consumers in and near disadvantaged communities who retire older, dirty cars and replace them with used or new hybrid, plug-in hybrid, or zero emission vehicles. This will be initially piloted in the San

Joaquin Valley and South Coast. We will award funding to those two air districts later this Spring.

- Financing assistance, such as loan loss guarantee or interest rate buy-down programs, to help lower-income consumers purchase cleaner cars. This project is under development, and we expect to release a competitive solicitation within the next few months.

While SB 1275 focused on passenger vehicles, SB 1204 provides a framework for funding heavy-duty vehicle and equipment projects. SB 1204 creates the California Clean Truck, Bus, and Off-Road Vehicle and Equipment Technology Program to fund the development, demonstration, pre-commercial pilot, and early commercial deployment of zero and near-zero emission technologies, with priority given to projects that benefit disadvantaged communities. SB 1204 establishes specific requirements related to how ARB prioritizes project categories and selects projects. It also directs ARB to prepare an annual framework and plan for implementing the program and articulating our overarching vision for investment in the vehicle and equipment technologies identified in the bill. We will incorporate these elements in the upcoming Funding Plan.

ARB's Broader Role in Coordinating GGRF Investments

In addition to directly administering ARB's Low Carbon Transportation funds, ARB also works closely with other agencies that receive funding from the Greenhouse Gas Reduction Fund. For example, ARB is developing Funding Guidelines to ensure all projects reduce GHG emissions and further the purposes of AB 32. The Guidelines will also:

- Establish fiscal procedures for State agencies that need to request withdrawals from the Greenhouse Gas Reduction Fund;
- Provide guidance on how an agency can maximize benefits to disadvantaged communities;
- Provide methods to quantify GHG reductions and co-benefits; and
- Establish reporting, recordkeeping, and accountability requirements.

Last fall ARB adopted interim guidance that applies to funds appropriated for the 14-15 fiscal year, and will adopt final guidance that includes all of the elements I just described this summer.

ARB also consults with the California State Transportation Agency, Caltrans, and the Strategic Growth Council on the development of their programs that together help to achieve regions' sustainable communities goals, expand transit and active transportation, invest in cleaner and more efficient vehicles, and utilize low-carbon fuels.

Closing

In closing, the key to addressing our climate, air quality, energy, and economic priorities in the transportation sector is to address each element of the system. That's what we're doing by requiring the cleanest vehicles and fuels, improving planning, supporting new technologies to improve system efficiencies, putting a price on carbon, and working to make our cities and towns more connected. Through these initiatives, I am optimistic that together we can achieve the state's ambitious air quality and climate objectives. I look forward to working with all of you in these endeavors.

Thank you.