MEETING

STATE OF CALIFORNIA
AIR RESOURCES BOARD

ZOOM PLATFORM

MARY D. NICHOLS CAMPUS

SOUTHERN CALIFORNIA HEADQUARTERS

HAAGEN-SMIT AUDITORIUM

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RIVERSIDE, CALIFORNIA

FRIDAY, MAY 20, 2022 9:08 A.M.

JAMES F. PETERS, CSR CERTIFIED SHORTHAND REPORTER LICENSE NUMBER 10063

# APPEARANCES

BOARD MEMBERS:

Liane Randolph, Chair

Sandra Berg, Vice Chair

John Balmes, PhD

Hector De La Torre

John Eisenhut

Gideon Kracov

Tania Pacheco-Werner, PhD

Barbara Riordan

Supervisor Phil Serna

Dan Sperling, PhD

Diane Takvorian

#### STAFF:

Edie Chang, Deputy Executive Officer, Planning, Freight, and Toxics

Annette Hebert, Deputy Executive Officer, Southern California Headquarters and Mobile Source Compliance

Edna Murphy, Deputy Executive Officer, Internal Operations

Rajinder Sahota, Deputy Executive Officer, Climate Change and Research

Craig Segall, Deputy Executive Officer, Mobile Sources and Incentives

Ellen Peter, Chief Counsel

Natalie Castaneda, Staff Services Manager I, Academic and Public Partnerships, Office of the Chair

## APPEARANCES CONTINUED

## ALSO PRESENT:

Janet Bernabe, Center for Community Action and Environmental Justice

Dave Cook, Rail Propulsion Systems

Ana Gonzalez, Center for Community Action and Environmental Justice

David Kittelson, Phd

Lonnie Mason, First Generation Environmental Health Economic Development

Maribel Nunez, Inland Equity Partnership, Inland Equity Community Land Trust

Paul Ong, PhD

Jürgen Resch

Faraz Rizvi, Center for Community Action and Environmental Justice

Sebastian Ruiz

Stephen Schwartz, Phd

Monserrat Valdez, Center for Community Action and Environmental Justice

John White, Center for Energy Efficiency and Renewable Technologies (CEERT)

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# PROCEEDINGS 1 CHAIR RANDOLPH: All right. Good morning. 2 The May 20th, 2022 public meeting of the California Air 3 Resources Board will come to order. 4 Board Clerk, will you please call the roll. 5 BOARD CLERK GARCIA: Yes. 6 Dr. Balmes? 7 8 BOARD MEMBER BALMES: Here. 9 BOARD CLERK GARCIA: Mr. De La Torre? Mr. Eisenhut? 10 BOARD MEMBER EISENHUT: Here. 11 BOARD CLERK GARCIA: Senator Florez? 12 Assemblymember Garcia? 13 Ms. Hurt? 14 Mr. Kracov? 15 16 BOARD MEMBER KRACOV: Here. BOARD CLERK GARCIA: Senator Leyva? 17 Dr. Pacheco-Werner? 18 BOARD MEMBER PACHECO-WERNER: Here. 19 20 BOARD CLERK GARCIA: Mrs. Riordan? BOARD MEMBER RIORDAN: Here. 21 BOARD CLERK GARCIA: Supervisor Serna? 22 23 BOARD MEMBER SERNA: Here. BOARD CLERK GARCIA: Professor Spelling? 24 BOARD MEMBER SPERLING: Here. 25

BOARD CLERK GARCIA: Ms. Takvorian?

Supervisor Vargas?

Vice Chair Berg?

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VICE CHAIR BERG: Here.

BOARD CLERK GARCIA: Chair Randolph?

CHAIR RANDOLPH: Here.

BOARD CLERK GARCIA: Madam Chair, we have a quorum.

CHAIR RANDOLPH: All right. Thank you. I'd like to begin with a few housekeeping items before we get started this morning.

We are conducting today's meeting in person as well as offering remote options for public participation by phone and by Zoom. Anyone who wishes to testify on a Board item in person should fill out a request-to-speak card available in the foyer yore and return it -- and turn it into a board assistant prior to the commencement of the item.

If you are participating remotely, you will raise your hand in Zoom or dial star nine if you are calling in by phone. The clerk will provide further details regarding how public participation will work in just a few moments.

For safety reasons, please note the emergency exit to the rear of the room through the lobby. In the

event of a fire alarm, we are required to evacuate this room and immediately exit the building through the front entrance when the all-clear signal -- when the all-clear signal is given, we will return to the auditorium and resume the meeting.

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A closed captioning feature is available for those of you joining us in the Zoom environment. In order to turn on subtitles, please look for a button labeled "CC" at the bottom of the Zoom window, as shown in the example on the screen now. Please speak clearly and from a quiet location whether you are joining us in Zoom or calling in by phone.

Interpretation services will be provided today in Spanish. If you are joining us using Zoom, there is a button labeled "Interpretation" on the Zoom screen. Click on that interpretation button and select Spanish to hear the meeting in Spanish. If you are joining us here in person, and would like to listen to the meeting in Spanish, please notify a Board assistant and they will provide you with further instructions.

I want to remind all of our speakers to speak slowly and pause intermittently to allow the interpreters the opportunity to accurately interpret your comments.

(Interpreter translated in Spanish.)

CHAIR RANDOLPH: I will now ask the Board Clerk

to provide more details on today's procedures.

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BOARD CLERK ESTABROOK: Thank you, Chair. Good morning, everyone. My name is Katie Estabrook and I will be handling call in -- any commenters that are joining us remotely and Lindsay Garcia will -- the Board Clerk, will be calling on commenters who have signed up and are joining us here in the room. I'm going to provide some information on how public participation will be organized for those who are joining us in Zoom or calling in by phone for today's meeting.

If you're joining us remotely and wish to make a verbal comment on one of the Board items or during the open comment period at the end of today's meeting, you will need to be using Zoom webinar or calling in by phone. If you are currently watching the webcast on CAL-SPAN but you wish to comment remotely, please register for the Zoom webinar or call in. Information for both can be found on the public agenda.

To make a verbal comment, we will using the raise hand feature in Zoom. If you wish to speak on a Board item, please virtually raise your hand as soon as the item has begun to let us know you wish to speak. To do this, if you are using a computer or tablet, there is a raise hand button. If you are calling in on the phone, dial star nine to raise your hand. Even if you have previously

indicated which item you wish to speak on when you registered, you must raise your hand at the beginning of the item so that you can be added to the queue and so your chance to speak will not be skipped.

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If you will be giving your verbal comment in Spanish and require an interpreter's assistance, please indicate so at the beginning of your testimony and our translator will assist you. During your comment, please pause after each sentence to allow for the interpreter to translate your comment into English. When the comment period starts, the order of commenters will be determined by who raises their hand first. I will call each commenter by name and will activate each commenter's audio when it is their turn to speak. For those calling in by phone, I will identify you by the last three digits of your phone number.

We will not be showing a list of commenters.

However, I will be announcing the next three or so

commenters in the queue so you are ready to testify and

know who is coming up next. Please note that you will not
appear by video during your testimony.

I would also like to remind everyone to please state your name for the record before you speak. This is especially important for those who are calling in by phone to testify on an item. There will be a time limit for

each commenter. The normal time limit is three minutes -minutes, though this could change at the Chair's
discretion. During public testimony, you will see a timer
on the screen. For those calling in by phone, we will run
the timer and let you know when you have 30 seconds and
when your time is up. If you require Spanish
interpretation for your comment, your time will be
doubled.

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If you wish to submit written comments today, please visit CARB's send-us-your-comments page or look at the public agenda on our webpage for links to these -- to send -- to send these documents electronically. Comments will be accepted on each item until the Chair closes the item.

If you experience any technical difficulties, please call (805)772-2715 so an IT person can assist. That number is also on the public agenda.

Thank you, Chair. I'll turn it back to you. CHAIR RANDOLPH: Thank you.

The first item on the agenda is Item number 22-7-3, the 2020-2021 Haagen-Smit Clean Air Awards.

If you are hear with us in the room and wish to comment on this item, please fill out a request to speak card as soon as possible and submit it to a Board assistant. If you are joining us remotely and wish to

comment on this item, please click the raise hand button or dial star nine now. We will call on both in-person and remote commenters when we get to the public comment portion of this item.

(Thereupon a slide presentation.)

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CHAIR RANDOLPH: Since 2001, the Board has annually bestowed the distinguished Haagen-Smit Clean Air Awards to individuals with extraordinary career accomplishments in the categories of air quality and climate change research, policy and science, and more recently in the categories of education, community service, and environmental justice. These accomplishments have been fundamental to the progress we've achieved.

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CHAIR RANDOLPH: The awards are named in honor of Professor Haagen-Smit, because of his important contributions to air pollution science and the significance of his career as our first Chair.

Arie Haagen-Smit, a native of Netherlands, was a bio-organic chemistry professor at the California Institute of Technology in Pasadena for 16 years. In 1948, he embarked on air pollution research when he was asked by the County of Los Angeles to investigate the chemical nature of what we now call smog. His research found that most of California's smog resulted from

photochemistry, when exhaust from motor vehicles and industrial facilities react with sunlight to create ozone. This breakthrough provided the scientific foundation for the development of California's and the nation's air pollution control program. He continued working in the field of air pollution research and control and took the smog problem in Los Angeles head on becoming CARB's first chair in 1968.

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CHAIR RANDOLPH: In 1973, in recognition of his contributions, Dr. Haagen-Smit received the National Medal of Science, this country's highest scientific honor. Dr. Haagen-Smit passed away in 1977, yet his legacy continues to inspire scientists and policymakers alike.

Over the last 19 years,

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CHAIR RANDOLPH: Over the last 19 years, 66 acclaimed scientists and policymakers have received the prestigious Haagen-Smit award for their contribution to clean air. Six recipients are being added to that list today, the 20th year of the Haagen-Smit Clean Air Awards program.

After today's meeting is adjourned, we will meet in the courtyard by the portrait of Dr. Haagen-Smit near the staff entrance to take a group photo of the awardees

with the Board.

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Additionally, at 2 p.m. in the Los Angeles and Merced rooms that are adjacent to the auditorium, the Haagen-Smit Clean Air Leadership Talks will be held. The awardees will give presentations about their work.

I'm pleased to be the one to introduce each recipient today and invite them to make a few remarks in acceptance of their award.

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CHAIR RANDOLPH: With that, the first 2020-2021 Haagen-Smit Clean Air Award recipient is Professor Richard C.J. Somerville in the category of climate change science.

Dr. Richard Somerville has been a professor at Scripps Institute of Oceanography at the University of California, San Diego since 1979. Professor Somerville is an internationally recognized climate scientist doing research that has led to many important innovations in climate computer models. He has published research on a myriad of climate science topics, including geophysical fluid dynamics, thermal convection, and radiative transfer to name just a few.

Professor Somerville has ex -- has extensively served as an expert on communicating to the public about climate change.

Professor Somerville could not join us today in

person and has sent a pre-recorded message which we will share now.

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DR. RICHARD SOMERVILLE: In 1951, when I was 10 years old, I was given a book called everyday weather and how it works. Reading that book I became fascinated by weather. I still am. At age 10, I already wanted to be a meteorologist when I grew up and that's what I did.

Much later, at age 38, I became a professor at the University of California, San Diego. And I also changed my research focus from weather prediction to climate change science. Why? Because I had been impressed by new research that pointed to an increasing risk of harmful climate change caused by human activities.

When I was a university student starting in 1958, atmospheric science was almost an all male field. There were no female professors or female students in my meteorology classes, zero. Today, there are many women in the field. There is still a long way to go, however, and not only for women. Today, Black and indigenous people, and people of color generally are still severely underrepresented in the earth and atmospheric scientists. There has been progress, but not enough progress.

As a child, I could never have imagined the technological breakthroughs that have occurred during my career. These include high speed computers making

skillful weather forecasts and earth satellites observing the atmosphere and the climate system.

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I earned my PhD degree in 1966 and then held some temporary post-doc jobs. After that, my career has been spent at only three organizations. These are the National Aeronautics and Space Administration, NASA, the National Center for Atmospheric Research, NCAR, and the University of California, San Diego, UCSD.

In early 1958, when I was deciding which university to go to, none of these three organizations even existed. But they were soon started and they grew rapidly. They illustrate how the Cold War and the space race with the Soviet Union helped American science expand quickly. This boom in research created opportunities for scientists of my generation.

I owe a lot to all the graduate students, scientists, and others with whom I have worked. The list is long, but I must especially thank Catherine Gautier, Susan Joy Hassol, Gabriel Kooperman, Cherilynn Morrow, Michael Pritchard, Sally Ride, Lynn Russell, and Samuel Shen for many years of enjoyable and productive collaborations. I also thank Carolyn Baxter my superb administrative assistant during my 40-year career at UCSD. My wife Sylvia and our sons Anatol and Alex have always encouraged and supported me in every possible way. I'm a

very lucky man.

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I am especially grateful to the California Air Resources Board for awarding me this great honor. I thank Professor Minghua Zhang and Dr. Stephen Schwartz for nominating me, and Professors Ralph Keeling and David Randall for their supporting letters.

I know a good deal about the research of Dr. Arie Jan Haagen-Smit, although I never met him. He died in 1977, two years before I came to California. However, I feel very close to Dr. Haagen-Smit in several ways. Like me, he arrived in Southern California in his 30s. Like me, he stayed there and became a professor at a great University. There's something else too, my wife Sylvia is Dutch, like Dr. Haagen-Smit. Sylvia was born in Amsterdam and she has spent most of her life in the United States, but she is still a citizen of the Netherlands. Thanks to Sylvia, I have visited the Netherlands often. I've done research there. I've learned to speak Dutch. And many Dutch scientists are my friends. Thus, I am very grateful for being selected to receive the Haagen-Smit Clean Air Award for climate change science. It means a lot to me.

Thank you.

CHAIR RANDOLPH: All right.

(Applause.)

CHAIR RANDOLPH: The next recipient is Professor Paul M. Ong in the category of Community Service and Environmental Justice.

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Professor Ong has engaged in a life-long commitment to air quality and community service. He has worked for over three decades as a scientist and educator on interdisciplinary social science and environmental teaching, policy-focused research, and community engagement. And he is now the Director of the Center for Neighborhood Knowledge at the University of California, Los Angeles, that works to contribute to positive social change through information from applied research at regional and local scales.

Professor Ong's more than 100 publications addressing racial inequities have had a significant influence on concerns for environmental justice.

Professor Ong, I would like to invite you to the podium to make your remarks.

DR. PAUL ONG: Good morning. I want to thank everyone. I want to thank CARB for this wonderful award. I want to thank my friends, families, and colleagues who have supported my work throughout the decades. It's a great honor to be among internationally distinguished individuals.

This award is important, because it acknowledged,

in my mind, the nee for a just transition as we address climate change to ensure that everyone benefits from our policies, programs, and investment. Environmental justice is the struggle for fairness in that endeavor. My award I hope has broader symbolic meaning. The bridging of researchers -- research and activists.

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The integration of environmental justice into the environmental agenda, such as those for CARB, is something that's been materializing over the last few decades. I've seen it in many other agencies. Yesterday, I gave a talk to the Department of Natural Resources for the State of Washington. We're also working with Caltrans to address past and current unfairness in freeway constructions.

One key aspect to integrating environmental justice is a more inclusive decision-making process. The process invites marginalized people to the table to hear their voices in the discussions and debates. For me, effective participation depends in part on having the capability to provide informed and evidence-based input, to have the data, the information, the knowledge to speak precisely and accurately.

We do that by bridging the research community with the marginalized disadvantaged communities.

Therefore, empowering stakeholders by generating relevant environmental justice research, by allowing communities a

say in shaping that research by assisting communities to conduct their own research, and by translating that research into action and into policy.

Like on many fronts, CARB has been on the forefront of integrating environmental justice into a broad agenda around climate change. For that, I am forever grateful and I want to acknowledge publicly the accomplishments of CARB.

At the same time, we're a long ways from the prize upon which gaze or eyes on. I challenge CARB to take bold action over the next decade around environmental justice to support the type of activities, both research and engagement, that will move us to address just transition. Again, thank you for the award. But more importantly, thank you for your work in this area.

(Applause.)

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CHAIR RANDOLPH: Thank you, Professor Ong.

The next recipient is Mr. Kunsheng Li in the category of International Air Quality Leadership.

Mr. Li has worked for over 20 years on the management of vehicle emissions in China with a focus on Beijing. Similar to how California leads the way in air quality for the United States, Beijing has served as a role model toward greatly improved air quality for China.

Mr. Li steadily promoted and implemented numerous mobile source emission control measures and coordinated legislation that significantly contributed to the improvement of Beijing's atmospheric environmental quality, with Beijing becoming China's leading city on mobile source emissions control.

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Mr. Li could not join us today in person and has sent us this recording.

KUNSHENG LI: Honorable, Mr. President and the daughters of Haagen-Smith Clean Air Award. To receive Haagen-Smit Clean Air Award is great honor for me and my family. I'm very grateful. At this moment, I want to thank many people including the colleagues and experts from the Beijing Bureau of Ecological and Environment, and the experts and animal treaters from the nationwide, and the three people who recommended me, Mr. He Kebin, and Mr. DingYan, and Mr. Gong Huiming. I want to specially many thanks to Michael Walsh who is my mentor and my friend.

In 1999, I went from the military research for vehicles to recruit new the environmental protection policymaker. I met so many great experts and give -- give me -- give us a lot of knowledge, information, and the latest progress in the world. So we set out our goal and the directions. We set up our local standards for the vehicles, old motor vehicles, and regulations, and

policies. We upgrade our local fuel standards step by step for implementing the new standards for a new vehicle ahead of the national steps. We set up all the local standards for the weekly use using American method, ESM. And we banned MMT as the first city in the world. We banned sales of the light diesel cars. We set up the low emission zones and for the vehicle and the no road vehicles. Most of all, the policy and the regulation standards were promoted and applied in the nationwide.

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Some people at first at home and abroad calling us the China's California. This is a compliment for our work. After more than 20 years effort, basing the total emission volume from the mobile resources and other resources greater reduced and the air quality improved greatly.

Looking back at more than 20 years ago, we traveled with we -- we are pleased with our progress. We are suffer from the -- some setbacks. We are gratified that support so many -- so many from the different fields and experts. I believe the -- to the whole environmental protection work is well is to the charity. And all people who do the environmental protection is one family.

Let me express my heart feeling many thanks to the all people who support us, and CARB, and the committee of the Haagen-Smit Clean Air Award selection.

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CHAIR RANDOLPH: The next recipient is Mr. Jürgen Resch in the category of Environmental Policy. Mr. Resch is an Executive Director of Environmental Action Germany, one of the most active non-governmental organizations in Germany for clean air policy. Mr. Resch has worked tirelessly to create broad alliances across non-governmental, scientific, and industrial organizations for bringing forward available technology to reduce air pollution.

Moreover, Mr. Resch has persistently championed the need for legal jurisdiction of environmental rights, regulatory legislation, and strong market surveillance, and has not hesitated to uncover fraud. For example, he took action in Germany on the automaker diesel scandal by providing solid data on real-world emissions and taking legal action to get access to relevant information.

Mr. Resch, congratulations.

(Applause.)

JÜRGEN RESCH: Good morning. The Haagen-Smit
Clean Air Award is a great honor for me. My heartfelt
thanks to the California Air Resource Board and the jury
for their kind decision. I would also like to extend my
thanks to those who support my nomination: Catherine

Witherspoon, Darryl Young, Harvey Rosenfield, Dan Greenbaum, Axel Friedrich, and Jim Strock.

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I owe all of you not only your support for this most prestigious global clean are award. We are united by our passion to fight for effective and binding legislation and law enforcement, but meet the challenge of global climate protection and air pollution control.

The first big transatlantic cooperation between a small NGO and a powerful administration was a push through of reformulated sulfur-free fuels in Europe in the 1990s. The aim was to stop acid rain and millions of tons of SO2 causing health problems and dying forests. Sulfur free fuels are also a precondition for modern emission control technology.

Oil industry was on the darkside. Their argument: To expensive and all Germany refineries will go bankrupt. The involvement of CARB experts was crucial for our success against oil industry and the fast implementation of sulfur-free fuels in Germany and Europe. Following California's example with reformulated fuels against smog in LA and other cities, we succeeded, and from November 2001, reformulated sulfur-fuels became standard, 13 years ahead of the official EU plans.

But car industry didn't brought, as they had promises, particulate filters and NOx catalysts. So we

started another powerful campaign, no diesel without filter. In 2002, we started 20 years ago, with testing, with hearings, press conferences all over Europe. Also in Washington and Sacramento, I'm remembering meetings of excellent, Alan Lloyd here and a lot of the experts.

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Car industry tried to blame and stop us, but we had the better arguments and so we succeeded. From 2005, the particulate filter became standard for new diesels in However, for clean air in our cities, our success Europe. came too late. Since the same year 2005, the new introduced air quality values for PM10 have been excited -- exceeded in practically all European cities. In April of 2005, we therefore sued the state for compliance with air quality limits in five German cities for the first time. And we won the lawsuits up to the highest German and for the highest European court. that time, every citizen in Europe has a right to clean air and can sue for the necessary measures in court. we pushed through low emission zone -- zones for dirt diesel bans in about 70 German cities.

But we don't have only problems with particulates. 2010 another obligation came to all European cities and so we had another problem, also nitrogen dioxide has to be lowered. Since 2011, we extended our air -- clean air fight to nitrogen dioxide in

the city air. So again, we had to set up 40 additional lawsuits against state and federal governments. We have won each single case, which has been decided up too far. And last year, most German cities complied with the -- first time with the standards.

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The reason for the bad air quality was the fraud of the automotive industry. In labs the diesel cars are clean, in reality not. Since 2005, I and my groups, and my old friend and colleague Axel Friedrich have been warned about illegal manipulation, especially defeat devices causing high NOx emissions. As early in 2011, we informed the German authorities in detail about Volkswagen emission fraud with the EA 189, the very engine that CARB found to have illegal defeat devices four and a half years later in September 2015.

Unlike authorities in the U.S. and California,

German authorities did not feel compelled to investigate

further and find the underlying cause of the matter. We

were asked by government officials to stop our

investigation and not to damage the "made in German"

quality mark through our work. This was in September

2015.

Without the consequent disclosure in California, at that time, the diesel scandal in German and Europe would not have been resolved. Your investigation and

consequences penal -- consequent penalties motivated us to investigate with our own -- to investigate with our own emission control institute we installed spring 2016. And from there 191 diesel cars with more than 2,400 testings we did on roads, each testing 22 miles long, Axel again is here our expert.

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A fraud cartel in the car industry had met more than a thousand times and was active more than 10 years. We gave a lot information to the Commission and Commission -- European Commission and they decided to make two cases against them. They had to pay billions of Europeanlty. So it was clear that it is -- that it is a fraud.

Now, enough of the struggle of the past. For me the Haagen-Smit Clean Air Award is one of -- is one thing above all, it's the mission. In September 2021, World Health Organization published new air quality targets. For NO2, the limit value drops from 40 to 10 and the particulate matter PM2.5 from 25 to 5 ug per cubic meter in the annual mean. This will not achieve effective protection of our health and environment until the just -- justified and implemented these new standards. And therefore, the motivation is very high now for me and our team to enforce these air quality standards earlier when than the government planned. And we want to implement

them in Germany and the other 26 European member states.

With the reputation of Haagen-Smit Clean Air Award, we will therefore start a project Clean Air 2.0 with an international conference in October in Berlin.

And I'm sure that we will have an even bigger knowledge transfer and also my hope to find project supporters and funders.

I thank you very much for your support and look forward to our continued cooperation for clean air and climate protection

(Applause.)

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CHAIR RANDOLPH: Thank you, Mr. Resch.

Th next recipient is Dr. Stephen Schwartz in the category of Air Quality Research. Dr. Schwartz has been on the scientific staff at Brookhaven National Laboratory since 1975. Trained as a chemist with specialization in physical chemistry, Dr. Schwartz has become a recognized expert in atmospheric chemistry, radiative forcing of climate change, and the responsive climate to anthropogenic factors. His research speciality is the influences of energy related emissions on climate with a focus on the role of atmospheric aerosols. Several of Dr. Schwartz's publications have been high influential research milestones and have impacted important policies

including the Clean Air Act.

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Dr. Schwartz, I invite you to the podium to make your remarks.

DR. STEPHEN SCHWARTZ: Thank you for that introduction and thank you very much for this award. I am honored by this award from the California Air Resources Board. I wish to thank those who nominated me and provided letters for this nomination and I especially wish to thank the colleagues that I've worked with over the years. I also wish to thank United States Department of Energy for their continued support of our research. Without that support, I would not be here, so I'm very much indebted to them.

Some of you may know, this is the second award that I'm receiving that has the name Haagen-Smit Award. There's an award presented by the journal Atmospheric Environmental for an outstanding publication, and it's called -- or was called the Haagen-Smit Award. And I think there was a bit of a turf battle between CARB and the journal Atmospheric Environment over who got to use the name Haagen-Smit Award. And I think CARB somehow prevailed and their award is now called Haagen-Smit Award, and the one from the journal is called Haagen-Smit Prize.

(Laughter.)

DR. STEPHEN SCHWARTZ: But -- I mean why

Haagen-Smit? He was a founding editor of that journal.

It's the same Haagen-Smit and he's recognized broadly throughout the community. And so I'm especially honored to receive now a second award called Haagen-Smit Award.

Maybe it's a little too irreverent, one of my colleagues at Brookhaven refers to my previous award as the Häagen-Dazs award.

(Laughter.)

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DR. STEPHEN SCHWARTZ: And I'm afraid now with a second such award with that title, he's going to accuse me of double dipping.

(Laughter.)

DR. STEPHEN SCHWARTZ: The -- I'm also up here in another capacity. I was one of the lead nominators for the award for Richard Somerville who you just heard speak. And I'm -- it was -- I had no question that the nomination would be successful. He was just an outstanding candidate for his contributions both in climate research and in making the public aware of the concerns over climate change.

And as you saw, Richard could not be with us this morning. He's in the south of France. And I imagine he's listening in by Zoom. So I would ask us all to raise a -- he's drinking a fine Bordeaux, I'm confident. So I'd ask us all to raise a glass virtually in a toast to Richard.

Although most of my career has been in New York,
I do have a strong California connection. I got my PhD at
Cal Berkeley with Harold Johnston. Some of you may
recognize the name. And it's through Harold Johnston that
I have a second degree connection with Arie Haagen-Smit.
The -- both of Harold Johnston and Dr. Haagen-Smit were
strong believers in the requirement of scientific
knowledge -- accurate scientific knowledge in order to
formulate effective public policy. And that heritage has
come down to me as well.

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The -- Johnston was a -- an expert in the chemistry of nitrogen oxides and ozone, and thus was very much interested from an academic perspective in the work that Dr. Haagen-Smit was doing from a perspective of air pollution and ultimately regulation.

So there -- according to a memoir of Harold
Johnston, he recognized early on that the mechanism that
Dr. Haagen-Smit had been using to infer ozone production,
so-called Bodenstein mechanism, was not fast enough, too
slow by orders of magnitude to produce the amount of ozone
that was being found in the Los Angeles area. And so he,
Hal Johnston, wrote a letter to Dr. Haagen-Smit suggesting
a free radical mechanism rather than the Bodenstein
mechanism, and Dr. Haagen-Smit immediately adopted that
mechanism and it has shown, by subsequent research, to be

the mechanism of ozone production. So that's my second degree connection to Dr. Haagen-Smit.

I want to close with high praise for California Air Resources Board. California, through the Air Resources Board, has really been the most aggressive state in the Union in terms of air quality regulation, in terms of promulgation of air quality standards. And just as an example, CARB got an exemption, as you all know, from the federal requirement of uniform emission standards to impose a higher standard, thereby forcing the automotive industry to demonstrate that they could meet those higher standards and then those standards become the national standards. So California should take great pride in their leadership, and the Air Resources Board especially so.

And to add to that, it's really the leadership through CARB and State of California that's imposing increasingly stringent regulations on emissions of climate-influencing gases, carbon dioxide especially. So I am especially proud to be receiving this award from CARB and I thank you very much.

(Applause.)

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CHAIR RANDOLPH: Thank you, Dr. Schwartz.

The final recipient is Professor David Kittelson in the category of Air Quality Science and Technology.

Dr. Kittelson has been a professor mechanical engineering at the University of Minnesota since 1980. Professor Kittelson is considered the world leader and pioneer of diesel emission research, who very early on in the 1970s began lecturing auto manufacturers and agencies on the human health impacts of diesel particulate pollution and the need for mitigation.

His research at the frontier of combustion engine emission studies provided the fundamental foundational knowledge of diesel particulate formation that enabled today's current stringent regulation. He has also worked tirelessly on technologies to reduce emissions from engines while also improving performance.

Professor Kittelson.

(Applause.)

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DR. DAVID KITTELSON: Well, good morning, and thank you very much. It's a great honor for me to accept the Haagen-Smit Clean Air Award. Dr. Haagen-Smit's work on photochemical smog control and his subsequent leadership as Director of CARB has been an inspiration for me for many years. The award came as a very pleasant surprise for me, but I now know who supported my nomination. And first, I'd like to thank them. That includes Professor Robert Sawyer of UC Berkeley, Dr. Alberto Ayala, Sacramento Air Quality Management District,

Professor Jingsong Zhang of UC Riverside, and Dr. Mathey Mareek of Ford.

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The work I have done on air pollution, especially particle measurement and control, would not have been possible without the support of many mentors and colleagues at the Department of Mechanical Engineering at the University of Minnesota. When I joined the UofM in 1970, I was invited to collaborate with the faculty of the Particle Technology Lab led by Professors Ken Whitby and Benjamin Liu.

Professor Whitby introduced me to the world of particle technology. He was a great mentor, who helped me start my research career. He had a deep understanding of how the world works and could always see the clear source of a problem.

Sadly, he passed away unexpectedly in 1983. It was a great loss to our department and the community.

Professor Benjamin Liu was another of my mentors and collaborators over many years. Ben Liu combined a deep fundamental understanding of particle physics with a very practical approach to experimentation and instrument development. He led the development of many advanced characterization instruments.

Professor David Pui at Minnesota has led our Center for Diesel Research for many years. He and I have

worked together on problems related to occupational air quality, liquid filtration, crank case particle control, and development of new exhaust filtration methods for both diesel and spark ignition engines.

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Finally at the University of Minnesota, Professor Peter McMurry led me in the direction of more fundamental characterization of particles from engines and vehicles, including particle B formation, and mass spectrometry, fundamental particle structure, density, volatility, hygroscopicity, and many other fundamental properties. It really helped understand the properties and understand how to make a filter work better for example. He has been a great colleagues over the years.

Now, going to some of the collaborators outside the University of Minnesota. In 1997, I received a small grant from the U.S. Environmental Protection Agency to review the state of the art of nanoparticle measurement in Europe. And at the time, Professor John Strewensky of the technical university in Biel in Switzerland was a visiting professor in our lab. He suggested that instead of running around Europe trying to see what's going on, that we have a meeting at ETH in Zurich to discuss nanoparticles.

So with that help of Professor Strewensky and Professor Siegmund of ETH Zurich and Dr. Andreas Mayer of

VERT, who has led worldwide programs to install retrofit particle filters on vehicles, we organized the first international meeting on nanoparticles in 1997. That meeting has continued for 25 years to -- it has grown and flourished. And my involvement in this meeting has been really essential for sharpening my skills and led to many opportunities for collaboration.

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Finally, I want to thank the many organizations that have supported my work. This includes CRC, EPA, DOE, EMA, and of course CARB, and many others as well as -- as many industrial sponsors who sometimes actually I made measurements and I said your engine is pretty dirty or this filter doesn't work. They still let me publish that. And I -- I really thanked them for that. And this would include companies like Cummins, Caterpillar, Deere, Johnson Matthey, Corning, BP, and many others.

And, of course, I have to thank all of my students, undergraduate and graduate students who over the years kept -- kept our research program going. And finally, I'd like to thank my wife Vanessa, who put up with me going off on field studies, coming back and saying wow, we really found a lot of nanoparticles there, and look at this size distribution. Now, interestingly, my wife is an artist, and she says, you know, I like the look of those soot aggregates. And she's actually incorporated

soot aggregates and size distributions and a number of mathematical formulas into her art.

So in addition to putting up with me, she actually got something out of this. So in any case, I'm very thankful for her. She's been a great supporter. And thanks again for this wonderful award.

(Applause.)

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CHAIR RANDOLPH: Thank you, Professor Kittelson.

That concludes the very distinguished and highly deserving list of Haagen-Smit Clean Air Awards recipients. And we're looking forward to handing out the awards in the courtyard following the meeting, and hearing more from the winters during the Clean Air Leadership Talks at 2 p.m. The link to CARB's YouTube livestream of the Clean Air Talks is shown on this slide.

So before I ask my colleagues, if they have any comments, I would like to ask the Clerk if there are any public commenters on this item.

 $\ensuremath{\mathtt{BOARD}}$  CLERK GARCIA: We have no commenters at this time.

CHAIR RANDOLPH: Okay. Do any Board members want to make any comments?

Okay. Thank you so much and congratulations.

(Applause.)

CHAIR RANDOLPH: And we're looking forward to the

talks this afternoon.

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Okay. The last item on the agenda is item number 22-7-4, academic Memorandums of Understanding, or MOUs, between CARB and educational institutions. If you are here with us in the room and wish to comment on this item, please fill out a request to speak card as soon as possible and submit it to a Board assistant.

If you are joining us remotely and wish to comment on this item, please click the raise hand button or dial star nine now. We will call on both in-person and remote commenters when we get to the public comment portion of this item.

Leading up to the opening of the Southern

California Headquarters we sit in today, CARB, along with

local educators and academic leaders developed MOUs to

establish a framework for academic cooperation and

collaboration.

The MOUs share the goals of promoting the study of air quality, advancing research, and inspiring students at all levels and diverse backgrounds to learn about our environment, the impacts of climate change, and California's groundbreaking work to clear the air in all our communities.

Born out of the recognition by the Board that in developing its new state-of-the-art laboratory and

offices, and their new location in close proximity to Riverside area academic, business, and research institutions, a unique opportunity existed to facilitate highly cooperative educational and workforce development opportunities.

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Starting in late 2019 and tracking the construction of the new facility, three initial MOUs were signed with the University of California, Riverside, the Riverside Community College District, and the Riverside Unified School District. In 2021, we created a dedicated academic and public partnership team with the responsibility to bring the vision of CARB and community together, leveraging each organization's resources and strengths with the common goal of training the next generation of environmental workers, scientists, visionaries and leaders.

Today, we will not only reinstitute those original commitments, but expand to include additional academic institutions in the broader Riverside and San Bernardino regions, including a commitment with multiple news outlets and number one ranked most diverse university in the west, La Sierra University. We also expand our reach to K through 12 students to include Alvord Unified School District educating Riverside's more diverse neighborhoods.

Deputy Executive Officer Hebert, would you please introduce the item.

(Thereupon a slide presentation.)

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DEPUTY EXECUTIVE OFFICER HEBERT: Thank you,
Chair Randolph. While we are still early in this process,
the actions by CARB and our partners have already
established a strong foundation for a synergistic and
effective relationship that will provide mutual benefits
to all participants for years to come. As this effort
moves forward, we envision that this partnership's actions
will develop and deliver air quality and environmental
specific STEM, which stands for science, technology,
engineering, and math, courses and other focused career
and technical education training programs.

This includes targeted curricula related to CARB programs and policy efforts to improve air quality and mitigate climate change, and the development of continuing education, internships, and certificate programs that create new air quality and science career pathways from -- for students from diverse backgrounds.

We understand that Black and Latinx communities to continue to be upper -- underrepresented in STEM.

These new and expanded partnerships provide an opportunity for us to build relationships and career pathways with students from all backgrounds to ensure that CARB reflects

the diversity of our state.

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Today, CARB is recommitting to these original kindergarten through university level agreements with Riverside area schools, while expanding the scope of this effort to include additional Southern California institutions delivering the benefits of this partnership to any greater range of students and increasing the diversity of the communities and people served by this effort.

I'll now ask Natalie Castaneda of the Office of the Chair to begin the staff presentation.

Natalie.

STAFF SERVICES MANAGER I CASTANEDA: Good morning, Chair Randolph and Board members. I am Natalie Castaneda, Manager of the Academic and Public Partnerships Section in the Office of Communications.

Today, I will be giving an overview of the academic memorandums of understanding with Riverside educational institutions.

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STAFF SERVICES MANAGER I CASTANEDA: CARB's memorandums of understanding, or MOUs, are mutually beneficial agreements with educational institutions located in the Riverside area. They provide partnerships for projects and program implementation, valuable

opportunities for underserved students, effective channels for staff recruitment, and exposes CARB's staff to fresh perspectives that are applicable to current work.

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STAFF SERVICES MANAGER I CASTANEDA:
Historically, CARB has had ties with educational
institutions and recruited many staff that began their
careers as interns or student assistants, myself included.
In relocating CARB's Southern California headquarters from
El Monte to Riverside, CARB has been embraced by the
Riverside community and encouraged partnerships with the
City, County, Chamber of Commerce, and local academia.

The partnerships we are cultivating aim to promote science, technology, engineering, and mathematics, or STEM, as well as a greater understanding of air quality and climate change to develop future leaders in those fields.

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STAFF SERVICES MANAGER I CASTANEDA: In 2019, CARB signed MOUs with Riverside Community College District, the University of California, Riverside, and the Riverside Unified School District for two years with the intention to expand to other academic institutions and promote education and career pathways in the area of air quality and climate change.

Unfortunately, due to COVID-19 and the subsequent delay in CARB's move to Riverside, we were unable to engage in full development of partnership ideas and programs. We are reaffirming our commitments with our original three academic institutions and expanding the reach to add four others in the greater Riverside area.

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between CARB and all seven institutional partners cover kindergarten through university level students. And we are confident these agreements will provide broadened opportunities for all parties. We will work jointly to develop air quality and climate change curriculum that expands the reach of our work by creating materials that go beyond what local educational institutions provide and can be used by other schools and universities beyond these MOUs or that is taught to students broadly.

In addition, teaching opportunities will be provided to CARB staff and enabling them to share their knowledge in classrooms or seminars. We will be working directly with the institutions to continue the educational growth of CARB's current workforce. That will allow for continued and advanced education opportunities and the development of training programs, not only in applied science, but also in leadership and policy.

Finally, we will develop a robust and well thought out student internship and curriculum credits program to provide educational work opportunities and valuable work experience. Training technicians to work on various programs to reduce air pollution with the training in the lab, or in policy and rulemaking will help round out their real-world experience.

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STAFF SERVICES MANAGER I CASTANEDA: CARB is committed to work with this diverse array of educational institutions to expand our reach, promote new approaches, and develop methodologies to address air pollution and climate change education. This is a critical mission and requires working together and utilizing our strengths and we look forward to these new connections with the Riverside community.

At the conclusion of the Board meeting, we will formally sign MOUs with seven educational institutions from kindergarten to community colleges, to four-year universities.

Today's signatories include University of
California, Riverside, Riverside Community College
District, Riverside Unified School District, Riverside
County of -- County of Education, La Sierra University,
Cal Baptist University, and Alvord Unified School

District.

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On behalf of the Academic and Public Partnerships Section, I would like to thank Chair Randolph and the members of the Board for supporting these MOUs. We truly look forward to partnering with so many institutions to enhance educational opportunities for students and CARB staff.

CHAIR RANDOLPH: Thank you, Natalie.

Board Clerk, do we have any members of the public who want to comment on this item?

BOARD CLERK GARCIA: We don't have any commenters at this time.

CHAIR RANDOLPH: Okay. Thank you.

Any Board members want to comment on this item?
Dr. Sperling.

much. You know, I -- I want to -- we have a lot of new Board members, so I want to just have a tiny bit of history here. And that is that, you know, while it was controversial whether to move it here -- you know, the southern campus to Riverside, those of us that supported it -- you know, I know there's a few nodding heads of the -- some of our senior Board members here.

BOARD MEMBER BALMES: Don't get Hector mad at you.

(Laughter.)

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BOARD MEMBER SPERLING: But, you know, those of us that supported the move, you know, from the very beginning to Riverside, it was premised on the idea that this is a research facility here primarily. We wanted it to be a research facility that not only did, you know, really technical emissions research, but, you know, included a broader research agenda as well about climate change and climate as it relo -- relate -- related to CARB and CARB activities.

And so I personally was extremely supportive of moving it here, because UC Riverside does have, you know, a world leading center on emission technology research, you know, CE-CERT, and some of the other faculty and researchers at UC Riverside. And so I'm delighted to see us -- you know, the continuing commitment. And actually I'd like to see even more of a commitment going forward, because it's so important to be training the next generation of scientists, and researchers, and engineers, and leaders. And so I do emphasize UC Riverside as being the leader here, but it is also important all of these other educational institutions.

You know, really this -- you know, this is a great opportunity for CARB, you know, working all the way from K-12 up through the UC system, you know, training --

training people, educating young people. So, you know, I'm wildly enthusiastic about this, you know, enacting even more MOUs. And actually, I am wildly enthusiastic about, you know, much more integration with UC Riverside and some of these other institutions going forward.

You know, this is the future -- you know, the future of our young people, the future of the research.

And it -- and it's great for CARB. You know, it's accessing all of that expertise at UC Riverside and -- and it -- and some of the other colleges also in terms of training. So this is a -- you know, this is a win-win of the highest level.

Thank you.

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CHAIR RANDOLPH: Thank you.

Board Member De La Torre.

BOARD MEMBER DE LA TORRE: I'm not going to comment on any of that stuff.

(Laughter.)

BOARD MEMBER DE LA TORRE: But I am going to say that just in the last month or so, I've had a few requests to come over here and check out our facilities, tour the facilities. And I've reached out to Annette and she's set these things up. So that's, I think, on a broader scale, as far away as LA Trade Tech folks wanting to come out here to -- to visit the facility, to check it out, and to

be inspired by what happens here.

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So thank you Annette. Thank you to your team for being available and being open to receiving all of these folks who are interested in this wonderful world class facility.

CHAIR RANDOLPH: Dr. Balmes.

BOARD MEMBER BALMES: Thank you. And so I wanted to pick up on something that my colleague, Professor Sperling, said about increasing the interactions with UC Riverside. You know, there's a medical school here and it's a medical school that's particularly dedicated to training physicians to care for those low income communities of color in this area who have been impacted, in terms of their health, by air pollution. And I would like us to not only use this great laboratory, with regard to motor vehicle emissions, but to consider collaborations with the health folks at UC Riverside, I mean, controlled human exposure studies are very hard to pull off.

You know, there's still a lab that I used to run at San Francisco General Hospital, but it's aging rapidly. And I'e been approached by folks here at UC Riverside about the possibility of us supporting both animal and human exposure studies, which are increasingly hard to do, but given that we have this world class facility here, I think it's something -- you know, that's something we

can't just start doing tomorrow, but it's an area I think we should explore.

CHAIR RANDOLPH: Dr. Pacheco-Werner.

BOARD MEMBER PACHECO-WERNER: Thank you. I've been so inspired by this facility. Something -- some of my colleagues know, but when I first immigrated to the United States as a five-year old, I lived around a mile from here. And I -- it's so inspiring now to be here and see all of the great work happening and now to see the efforts to bring in kids that looked like me, that probably had similar backgrounds into these types of experiences.

And so thank you for your work. And I think, you know, whatever I can do personally to support that work, please let me know.

Thank you.

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CHAIR RANDOLPH: Thank you so much.

So this is an informational item only, so we don't need to take a vote. But I will express my enthusiasm as well for the -- for the MOUs and looking forward to working on implementation going forward.

We have to do open public comment, so I will we ask the Haagen-Smit Award recipients and the MOU signatories to hang out in the courtyard and then we will our open public comment, conclude the hearing, and we will

join you out in the courtyard. So thank you very much.

Okay. Board Clerk, do we have any actual public commenters for open public comment?

BOARD CLERK GARCIA: Okay. We have one in-person commenter who wishes to speak at this time.

CHAIR RANDOLPH: Okay. Great.

BOARD CLERK GARCIA: John White.

CHAIR RANDOLPH: Okay. John, I think you're actually our first official in-person public commenter in this auditorium, so congratulations.

(Applause.)

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JOHN WHITE: Well, thank you.

And as a graduate of UC Riverside and someone who shared Dr. Sperling's enthusiasm for this move, I couldn't be happier to be here. Also, I want to acknowledge the presence of our former Chair Secretary at CalEPA and a Haagen-Smit award winner Alan -- Alan Lloyd and former Senator Fran Pavley, the author of the legislation that is the subject of the Scoping Plan that I wanted to speak to this morning.

First of all, I want to -- I want to -- (Applause.).

JOHN WHITE: Yes, to both of you. I enjoyed being here yesterday and seeing the progress being made on the racial equity issues and the sensitivity and the

development that's coming along in that regard. I also was reminded by the Haagen-Smit Award winners about the distinguished importance of science as we have developed our policy.

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And over the next months, you're going to be hearing a lot from people, including us about the Scoping Plan, and what's wrong, and what needs to be fixed, but I think it's important that we put it in context. This week, Secretary General of the United Nations, António Guterres, reminded us of the perilous path we're on with the State of Climate Report that came out. We also have to recognize that one of the things that's disappointed us is the Air Resources Board's failure to participate actively in the implementation of the SB 100 Working Group at the Energy Commission. This is the agency where all the interagency progress is being made. And the modeling that you're using in your Scoping Plan is out of synch, as well as not being transparent.

The Power sector modeling by E3 is a capacity expansion model. It's flawed. It does not take account of natural gas prices. And if you've been reading the paper, natural gas is at -- is at an all-time high and the driving source of rate increases. So the idea that delaying cleaner energy investments is the low cost -- I mean, is the higher -- is the low cost option that's

substituting speculative ideas like carbon removal, which in other states are accounting for maybe five or 10 percent. We read the Scoping Plan, it accounts for maybe up to 20, 25 percent.

We need to accelerate clean energy progress.

That will lower natural gas rates and costs. So we'll be talking over the next month, but I really urge the Board itself, you all, to take responsibility for making this work better and listening to the criticisms that have been mostly ignored, but are going to become forward.

So in that spirit of cheerful science and policy interaction, I thank you for your attention and look forward to talking with you again. And very, very happy to be here. And congratulations, to all the awardees, to all of your partnerships, and to all of you for getting the opportunity to serve in this most wonderful institution.

Thank you.

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(Applause.)

CHAIR RANDOLPH: All right. Thank you.

Any other commenter?

BOARD CLERK GARCIA: Yes. We have three remote commenters who wish to speak at this time. If you wish to verbally comment on this Board -- on the open comment item, please raise your hand or dial star nine now.

So the first three speakers are Dave Cook, Lonnie M., and Ana Gonzalez.

(Thereupon a slide presentation.)

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BOARD CLERK GARCIA: Okay. Dave, we have activated your microphone. Give us a moment. Okay. We've pulled up your presentation. We will set a timer on our end and I'll let you know when you have 30.

ISD AIR POLLUTION SPECIALIST COOK: Thank you. Can you hear me?

BOARD CLERK GARCIA: Yes, we can.

DAVID COOK: Good morning, Madam Chair and fellow Board members. My name is David Cook. And I am the Chief Technology Officer for Rail Propulsion Systems out of Fullerton, California. This is our zero-emission switcher locomotive that has been in operation since June of 2020 in Anaheim, California.

Next slide, please.

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DAVID COOK: This screenshot from CalEnviroScreen highlights the 88 percent score of the railyard where our -- this zero-emissions locomotive operates. Across the freeway in the red rectangle is the Kaiser Hospital in Anaheim.

Every shift of operation our battery locomotive operates displaces a shift of work by one of these smoky

1950s locomotives with emissions worse than Tier 0.

Next slide, please.

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DAVID COOK: The red line illustrate a shift of operation at the railyard. A shift at this railyard lasts from 1.5 to 4 hours. On a busy day, two shifts will operate. In the second half of 2020, the locomotive operated for 48 shifts. In 2021, the locomotive operated 10 shifts over the year. And in the first four months of 2022, we've got 12 shifts of operation. If we had received a core voucher in 2020, this locomotive would have operated over a 150 shifts per year through '21 --2021 through 2023. With the higher voucher amount to increase the energy storage and power, then this locomotive could operate as a primary locomotive at this railyard for over 300 shifts per year.

Next slide, please.

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DAVID COOK: We request that CARB leadership investigate raising the CORE voucher cap amount to a more appropriate value without waiting an additional year. We also request that the CORE manufacturer purchase option be reinstated at least for new categories.

We would like to initiate a discussion to change CARB's perception of what demonstration means when

discussing locomotive projects. To the rail industry, any new locomotive system that hasn't yet gone through a 12-year rebuild is considered a demonstration. This means that the hundreds of millions of dollars that California has put into lower emissions freight locomotives under CARB leadership has actually been spent on demonstrations, and we believe a CARB investigation into how many of these locomotives were still in service 10 years later will come to a number close to zero. We believe the fixes to the CORE Program could bend this curve.

I'm happy to answer any questions. Thank you for your time.

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CHAIR RANDOLPH: Thank you.

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BOARD MEMBER KRACOV: This is Board Member
Kracov. Thank you, Mr. Cook. I know you're an active
participant in matters at the South Coast. And I
promised, I will follow up with our CORE staff. I know
they've made some adjustments to the guidance, but I'll
follow up on your questions.

BOARD CLERK GARCIA: Thank you.

The next speaker will be Lonnie M. Lonnie, we've activated your microphone. Please unmute yourself and can begin.

LONNIE MASON: Yes, can you hear me? Just one

quick questions. Is this an agenda open comment for non-agenda items?

BOARD CLERK GARCIA: Correct.

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LONNIE MASON: Oh, it is. Okay. All right. One of the -- first of all, good morning. Thank you for listening to me.

My name is Lonnie Mason, the Executive Director of First Generation Environmental Health and Economic Development.

Yesterday, I wasn't able to comment and it was dealing with AB 617, and -- which is supposed to be community driven, but it's not. And there are various issues concerning this particular bill or, you know, program. And it's supposed to be geared toward the community.

But one thing I want to say and I want to address to this Board and I don't think they're aware of it, First Generation is based out of the Bayview Hunters Point community. We have a homeless shelter that is smack dab in the middle of a toxic a waste dump. It's surrounded by a cement factor that has been operating for 20 years without a permit, as well as Recology. And you have the nuclear Naval shipyard that's right in proximity. It doesn't make sense. This is environmental racism. It's up to the air district, as well as CARB, to remove or to

get on the city, regardless of what the city says, and this is their only option, it's not the right place to put a homeless shelter right smack dab in the middle of a cesspool.

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These individuals predominant -- they're predominantly Black, you, know homeless, poor individuals who are not educated enough to understand what's going on, or the outcome, or the risk factors of being placed in that particular area.

It's important that CARB or the air district do their due diligence when it comes to providing funding. You cannot provide funding for individuals who are responsible for putting a homeless shelter right smack dab dead in the middle of a toxic dump. It doesn't make sense.

So I'm -- I'm -- I'm coming on here to inform you guys, because I don't think guys are aware of what's going on. You know, this -- this shouldn't take place, you know, at all. You know, how in the world you're going to put or going to allow groups involved in the community who are sworn to -- you know, to go against environmental justice, right, be a part of the problem. And they're a part of the problem, so it doesn't -- it doesn't make any sense. You know, this is on your watch and it's been on your watch for some time.

First Generation has made this clear with CARB and the air district about this particular site and this area. You know, it doesn't make sense that you can allow this to happen and allow the city to get over this. They should be warned and they should be told about this egregious -- you know, grievous act period. They -- this should not be allowed to happen or to take place or, once again, to fund grass root organization.

BOARD CLERK GARCIA: You're --

LONNIE MASON: One second. One second -- grass roots organization within that community to continue on causing the problem within our community.

BOARD CLERK GARCIA: Thank you.

Our next two speakers --

BOARD MEMBER TAKVORIAN: Excuse me for one

16 | second. Madam Chair?

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CHAIR RANDOLPH: Yes.

BOARD MEMBER TAKVORIAN: Could we request that this information be transferred to the -- well, to CalEPA to the Department of Toxic Substances Control. I mean, if this is a hazard waste site, that -- and maybe Dr. Balmes has more information. But I was just trying to ensure that the information is going to the agency that could take action on it. And it's a hazardous waste site, then perhaps DTSC is the right place.

BOARD MEMBER BALMES: It's more complicated than that, Diane.

BOARD MEMBER TAKVORIAN: Okay.

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BOARD MEMBER BALMES: So the Bayview-Hunters

Point is a community that the gentleman was talking about.

BOARD MEMBER TAKVORIAN: Right.

BOARD MEMBER BALMES: There's a, you know, former Naval shipyard there that is more than a toxic waste dump. It's got a long history of very toxic contamination and distrust by the community of the Navy, of the city, who wants to develop the Naval yard, of me personally, because I was involved in an effort to try to medi -- to try to bring some outside view of the Naval shipyard contamination. And I got caught in the middle of, you know, very angry residents. And, you know, it was hubris on my part to think that this old white guy come in and, you know, make a difference. I didn't.

But I do know a little bit about the concern about the cement plant, because I was actually interviewed by local media about that. So there is a cement plant that's right there. And there is a facility -- I'm not sure if it's the exact one he was talking about. There is a facility for parking, people who are living in their vehicles, right like downwind from the cement plan. And that's leaving aside any toxic waste dump, which may also

be there, because that neighborhood is an industrial neighborhood for a long time.

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The Bay Area Air Quality Manage District is definitely aware of the cement dust. You know, the -- so I do think that DTSC may have a role there. So I just wanted to say that it's a very complicated situation. And the Bayview-Hunters Point community was the one that Veronica was mentioning yesterday.

BOARD MEMBER TAKVORIAN: Right.

BOARD MEMBER BALMES: They'd like to support it as an AB 617 community, but it's just difficult and complex.

VICE CHAIR BERG: Okay. Well, thank you very much, Board Member Takvorian, and I will follow up with staff.

BOARD MEMBER TAKVORIAN: I just didn't want it to go into the record but not get trans --

VICE CHAIR BERG: Yes.

BOARD MEMBER TAKVORIAN: I'm aware

Bayview-Hunters Point for several decades. So I

understand. I just wanted an agency that the Bay Area

District as well as DTSC perhaps can at least respond to this gentleman.

VICE CHAIR BERG: Well, it does seem that we have a lot of moving pieces here, so why don't we pass this

back off to -- I mean, ask staff just to review what our responsibilities are, make sure we're following up --

BOARD MEMBER TAKVORIAN: Yes

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 $\mbox{ \begin{tabular}{lll} VICE CHAIR BERG: & -- & and & then & with our sister \\ agencies. \end{tabular}$ 

BOARD MEMBER TAKVORIAN: Thank you.

VICE CHAIR BERG: Would that be acceptable?

BOARD MEMBER TAKVORIAN: Yes. Thank you so much.

VICE CHAIR BERG: Thank you. And thank you, Dr. Balmes.

BOARD CLERK GARCIA: Okay. We have three remote commenters left to speak at this time. So that would Ana Gonzalez, Janet Bernabe, and Monserrat Valdez.

Ana, I have unmuted your -- I have activated your microphone. Please unmute yourself and you can begin.

ANA GONZALEZ: Thank you so much. Good morning every everyone. Good morning, CARB Board, staff, and community members there and listening from home. My name is Ana Gonzalez. I'm the Director at the Center for Community Action and Environmental Justice, also known as CCAEJ. We represent hundreds of members who live in the Inland region, also known as the Inland Empire.

I want to commend the staff, EJAC, and Board for working diligently on the CARB Scoping Plan. We are at a moment in time, where if we don't make serious intentional

changes in our communities, we will continue to suffer and die.

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We are facing an expansion of diesel death zones in our region and across California. A recent study published in the New York Times stated that PM2.5 levels have increase by 11.6 percent since 2016. And we understand too well here in our communities, why that is. We have about one million truck trips a day between San Bernardino and Riverside Counties. And on top of that, we have all these other industries and corporations that pollute our air and water.

So I'm urging this Board to please make strong changes that will phase this out to 100 percent clean energy, the sooner the better. You know, we're dealing with oil refineries in the -- in the Bay Area and other LA County communities, the oil drilling extractions, but most importantly transportation for us here in the Inland region.

CARB must move aggressively to phase out internal combustion engine cars sales by 2030 and a hundred percent of trucks sales should be zero-emission by 2035. We need to electrify our new developments and see if we can find a just transition to our mom and pop businesses, so they can also transition and have the infrastructure in place to transition to a hundred percent cleaner energy.

So I urge this Board today, as you're preparing to take a vote in the coming months on the CARB Scoping Plan, to please, please, look at of these egregious polluters that are really killing our communities. I am a mother of a son that has developed asthma, because we have 400 trip -- truck trips a day in my community.

And so I urge this Board to take this serious and to make the necessary changes that we need to get to a better place so we can improve our quality of life. Thank you so much for your oppor -- for this opportunity.

BOARD CLERK GARCIA: Thank you.

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Okay. Janet, I have activated your microphone. Please unmute and begin.

JANET BERNABE: Yes. Hi. Good morning. Can you hear me?

BOARD CLERK GARCIA: Yes, we can.

JANET BERNABE: Okay. Hi. Good morning. I just want to go ahead and thank the staff -- the CARB staff, the Board, and community members that give their time this morning to be able to come out and make a public comment.

My name is Janet Bernabe. I am a resident of the City of Perris for over 25 years, so I've been living in the Inland Empire most of my life. I am also the Organizing Director for the Center for Community Action and Environmental Justice, CCAEJ.

I am speaking today on behalf of the CARB Scoping Plan. Overall, CARB needs to create more ambitious plans to start environmental justice ongoing in our state to prevent the impacts of the climate catastrophe. We know overall that the IE is one of the -- well, one of the communities that has been mostly impacted by the industries that are starting to come into our regions and overpolluting our communities, specifically communities of interest that have been overburdened time and time again.

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So we want to or I want to ask the CARB in regards to the CARB Scoping Plan not to include any new gas plants, exclude any investments in fossil fuels infrastructure, and pursue renewable energy. As I mentioned, I lived in the region for 25 years and I get to see firsthand overall testimonies of our community members how they're being impacted time and time again, specifically in cities such as Colton that has three active gas plants.

So we want to reassure that our community is going to be having thriving long lives and not be having preexisting conditions as we have seen the community has been impacted during the pandemic.

So for today, I want to ensure that the Scoping Plan reaches zero emissions electric sector by 2035. So I'm here today not just to advocate for myself, but also

to advocate for the community members that cannot be there in person or either make a public comment due to their schedules.

So I also want to make a suggestion, if we can make -- change public comment at the beginning of the meeting, because community makes it really hard for them to come out. And right now, you know, we're trying to make a public comment over the phone. Not everybody has the same luxury as I do to get paid for the work that I do.

But yes, thank you so much. And I hope you take into consideration that this is going to impact us for the next five years.

Thank you so much.

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BOARD CLERK GARCIA: Thank you.

Okay. Next, we have Monserrat Valdez. And after Monserrat will we'll be Maribel Nunez.

Monserrat, I have activated your microphone. Please unmute and begin.

MONSERRAT VALDEZ: Hello. Good morning. Thank you to all of you guys for taking the time today to hear us out. My name is Monserrat Valdez and I currently reside in Victorville. I am an intern with the CCAEJ organization.

The reason I wanted to hop on today and make a

comment was because I heard about the Scoping Plan. And once I did further research into it, I realized how much of an impact it's going to have for everyone here, specifically in the IE as well, because every day I share the road and the freeways with multiple truck drivers. And while I do understand that it is an occupation and a job opportunity for others, I understand that the impacts of having that many, you know, carbon emissions with these truck drivers every day is not healthy. And I'm also urging on you guys to try to understand that this type -- in this crisis right now, we are in a climate controlled -- climate change crisis, and I wanted to bring attention to that.

So I would recommend that in this -- me making a public comment I am asking for you guys to try to reduce emissions from the transportation sector and try to pursue direct emission reductions. I'm calling on a new Scoping Plan that could help out the entire community for years to come as well, because this is the growing problem that I would love to see a solution. I would love to help out anyway I can to try to reduce the pollution and the climate control crisis that we have at the moment.

And thank you.

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BOARD CLERK GARCIA: Thank you.

Okay. Mar -- let's see. Next, we have Maribel

Nunez. Maribel, I have activated your microphone. Please unmute and you can begin.

MARIBEL NUNEZ: Can you all hear me?
BOARD CLERK GARCIA: Yes, we can.

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MARIBEL NUNEZ: Hello, everyone. My name is Maribel Nunez. I'm Executive Director Inland Equity Partnership and Inland Equity Community Land Trust. And we believe in just community development. And I'm a resident of Riverside. I've been living in Riverside since 2012 and then lived in Chino Hills since 1989, so I've been living in the Inland Empire since 1989. And yes, I wanted to appreciate and thank the Board for letting me to speak.

And I'm here to seek about the CARB Scoping Plan. I do believe CARB needs to create more ambitious plans to stop environmental justice -- injustices ongoing in our state and prevent the worst impacts of climate catastrophe. In a rapidly deteriorating climate, CARB wants to keep burning gas and even wants to build more gas plants. And burning gas harms our lungs, the health of our community. We need CARB to create the equitable road to zero emissions by 2035 in the electric sector for the health, and for our people, and our planet.

And so I know I live in Riverside close to Moreno Valley. There's so many warehouses, traffic. So it's

hurting just commuting, but also like the air in our communities. So -- and I know -- you know, I'm fortunate that at Riverside we have a little bit less warehouses than other places. But yeah, I'm impacted just living next to Moreno Valley. And we've seen the impacts that it does with all those warehouses, and all that.

I wanted to, you know, mention in this scoring plan, I asked the Board to not include any new gas plants, exclude any new investments in fossil fuel infrastructure, and pursue renewable energy, pursue direct emissions reductions, rather than gambling on carbon capture and other unproven technologies, reduce emissions from the transportation sector, as I said before.

But, yeah, so like I said with Inland Equity

Partners, we have a coalition of 30 organizations here

that support some of these issues, environmental justice.

We're part of working with CCAEJ, a lot of different

groups. And so, yeah, please consider our recommendation.

Thank you so much for your time.

BOARD CLERK GARCIA: Thank you. Okay.

That concludes the Zoom commenters. We currently have one -- one more in-person commenter.

Faraz Rizvi.

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FARAZ RIZVI: Okay. Hello, Board members. Good morning. And I'm excited to be here at this Riverside

campus for the first time. My name is Faraz Rizvi and I'm also representing the Center for Community Action Environmental Justice.

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And I'm exited to be here at this beautiful campus, because I think it really shows that Riverside County and San Bernardino County, members of the Inland region are also part of your ward. And as some of my colleagues earlier mentioned, Riverside and San Bernardino counties have the worst air quality in the country. It's killing people. We have elevated rates of COPD. We have elevated risks of asthma. And we have some of the highest hospitalizations from both of those diseases, including respiratory and cardiovascular disease.

And I'm here to talk about how the Draft Scoping Plan is going to impact this region. So many people -many people have already talked about the impacts of the Draft Scoping Plan and what we're really hoping for. And what I'm really trying to push for is that we need to phase out gas fired electricity generation completely.

And the current Draft Scoping Plan does not do that by 2045. It actually plans to build more.

According to some estimates, almost 10 gigawatts of gas fired electricity generation. We really need to exclude any new investments in fossil fuel infrastructure and propose building renewable energy instead. And on the

transportation side, which is really close to a lot of the issues here that impact community members in the Inland region.

We need to reduce emissions from the transportation sector to comply with the Governor's Executive Order. Th current Scoping Plan doesn't assume any early retirement of medium- or heavy-duty combustion trucks. This is a huge problem. These heavy-duty combustion trucks that are going in and out of our communities are next to sensitive receptors or next to homes. They're next to schools. And they're releasing PM2.5 into the air. There is some plans to get this -- get these diesel combustion engines off the road by 2045. But that's not possible, if we don't have mid-term -- mid-term targets to take these off the road. We've worked the SCAQMD for the ISR. And that's also going to be transitioning to electric trucks by 2045.

But if people are going to have serious changes in their health, we need mid-term targets and we need to get electrification and electric vehicles out on the roads now.

Thank you.

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BOARD CLERK GARCIA: Thank you.

Okay. It looks like we have one more remote commenter. That will be Sebastian Ruiz. Sebastian, I

have activated your microphone. Please unmute and begin.

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SEBASTIAN RUIZ: Hi. Hi. Can you hear me?

BOARD CLERK GARCIA: We can hear you.

SEBASTIAN RUIZ: Okay. Cool. Good morning. I'd like to start off, first of all, by thanking you all for giving me this opportunity to speak up.

Like I said, my name is Sebastian. I'm a resident of Pico, but I consider this as my home. And I'm honored -- I just want to stick -- speak on the CARB Scoping Plan and just looking at it.

I just want to like -- like say -- that looking to the Scoping Plan, it doesn't seem to be the best interests of the community. And I just want to say, how, like it's best that we don't invest in like fossil fuel industry. And it's better to like pursue renewably energy, as we see like time and time again the consequences of climate change with the wildfires going on.

This is -- it's very important at this time like to keep -- to keep these -- like these gases -- and energy like these gas plants as low as we can. And as many of my colleagues have explained. Like gambling on like carbon capture is not an option. And it is like within the best interest to do so with the committee in mind.

And, yeah, like I said, just thank you all for

your time really. That is all.

BOARD CLERK GARCIA: Thank you.

Madam Chair, that concludes the list of commenters.

VICE CHAIR BERG: Thank you very much. And thank you for all the commenters that stayed with us and testified here before us. Of course, we will be working on the Scoping Plan and encourage the comments and interaction with us. And then we'll be hearing that towards the end of this year.

So Board members, we've come to the end of our Board meeting. If you're able to stay, we will be meeting in the foyer in the center of the building, both for pictures and the MOU signing.

And this is the conclusion of our meeting, so everybody safe travels and thanks for a great couple of days.

(Thereupon the Air Resources Board meeting adjourned at 10:48 a.m.)

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## CERTIFICATE OF REPORTER

I, JAMES F. PETERS, a Certified Shorthand
Reporter of the State of California, do hereby certify:

That I am a disinterested person herein; that the foregoing California Air Resources Board meeting was reported in shorthand by me, James F. Peters, a Certified Shorthand Reporter of the State of California, and was thereafter transcribed, under my direction, by computer-assisted transcription;

I further certify that I am not of counsel or attorney for any of the parties to said meeting nor in any way interested in the outcome of said meeting.

IN WITNESS WHEREOF, I have hereunto set my hand this 7th day of June, 2022.

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James 4 Patter

JAMES F. PETERS, CSR

Certified Shorthand Reporter

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