A P P E A R A N C E S

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Mr. Kurt Karperos, Deputy Executive Officer
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Ms. La Ronda Bowen, Ombudsman
Ms. Emily Wimberger, Chief Economist

Ms. Michelle Buffington, Manager, Off-Road Agricultural Strategies and Incentives Section, Mobile Source Control Division (MSCD)
AAPPEARANCES CONTINUED

STAFF:
Mr. Bart Croes, Division Chief, Research Division (RD)
Ms. Shannon Dilley, Attorney, Legal Office
Mr. Mike Fitzgibbon, Branch Chief, Atmospheric Science and Climate Strategies Branch, RD
Mr. Glenn Gallagher, Staff Air Pollution Specialist, RD
Mr. Pamela Gupta, Manager, Greenhouse Gas Reduction Strategy Section, RD
Ms. Deborah Kerns, Senior Attorney, Legal Office
Mr. Jack Kitowski, Division Chief, MSCD
Ms. Lucina Negrete, Branch Chief, Innovative Strategies Branch, MSCD
Ms. Erin Uchida, Air Resources Engineer, Innovative Strategies Branch, MSCD

ALSO PRESENT:
Ms. Lori Apodaca, California Citrus Mutual
Mr. Joseph Ayerza, Fresno Equipment Company
Mr. Todd Ayerza, Campos Brothers Farms
Mr. Louie Brown, Kahn, Soares and Conway
Mr. Paul Buttner, California Rice Commission
Ms. Colleen Cecil, Butte County Farm Bureau
Ms. Noelle Creamers, California Farm Bureau Federation
Mr. Manuel Cunha, Nisei Farmers League
Mr. Matt Dessert, Imperial County Air Pollution Control District
ALSO PRESENT:

Mr. Harvey Eder, Public Solar Power Coalition

Ms. Genevieve Gale, CVAQ, Coalition for Clean Air

Mr. Kevin Hamilton, Central California Asthma Collaborative

Mr. Mary Humboldt

Ms. Devon Jones, Mendocino County Farm Bureau

Mr. Tom Jordan, San Joaquin Valley Air Pollution Control District

Mr. Roger Isom, California Cotton Ginners and Growers Association, Western Agricultural Processors Association

Mr. Jaime Lemus, Sacramento Metropolitan Air Quality District

Mr. Kevin Messner, Association of Home Appliance Manufacturers

Ms. Brea Mohammed, Imperial County Farm Bureau

Mr. Darrin Monteiro, California Dairies, Incorporated

Mr. Tom Morris, Honeywell

Ms. Kay Pricola, Coalition of Labor, Agriculture and Business Imperial County, Imperial Valley Vegetable Growers

Mr. Dan Pronsolino, Cortina Hulling and Shelling, Western Ag Processors Association

Mr. Mikhael Skvarla, UTC-Carrier

Mr. Joseph Tona, Tehama County Air Pollution Control District

Mr. James Wagoner, Butte County Air Quality Management Division

Ms. Helen Walter-Terrinoni, Chemours
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PROCEEDINGS

CHAIR NICHOLS: Good morning, everybody. Welcome to the March 23rd, 2018 public meeting of the California Air Resources Board. We will now come to order. And let's begin with the Pledge of Allegiance.

(Thereupon the Pledge of Allegiance was recited in unison.)

CHAIR NICHOLS: The clerk will please call the roll.

BOARD CLERK McREYNOLDS: Dr. Balmes?

BOARD MEMBER BALMES: Here.

BOARD CLERK McREYNOLDS: Mr. De La Torre?

Mr. Eisenhut?

BOARD MEMBER EISENHUT: Here.

BOARD CLERK McREYNOLDS: Senator Florez?

Assembly Member Garcia?

Supervisor Gioia?

BOARD MEMBER GIOIA: Here.

BOARD CLERK McREYNOLDS: Senator Lara?

Ms. Mitchell?

Mrs. Riordan?

Supervisor Roberts?

Supervisor Serna?

BOARD MEMBER SERNA: Here.

BOARD CLERK McREYNOLDS: Dr. Sherriffs?
BOARD MEMBER SHERIFFS: Here.

BOARD CLERK McREYNOLDS: Professor Sperling?

Ms. Takvorian?

BOARD MEMBER TAKVORIAN: Here.

BOARD CLERK McREYNOLDS: Vice Chair Berg?

VICE CHAIR BERG: Here.

BOARD CLERK McREYNOLDS: Chair Nichols?

CHAIR NICHOLS: Here.

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

CHAIR NICHOLS: Thank you. Just a reminder, if there's anybody who's not familiar with the process, that we ask you to fill out a request to speak form if you plan to testify, and submit it to the clerk if at all possible before the start of the item that you're wanting to speak about. I also need to point out the emergency exits at the rear of the room. In the event of a fire alarm, you're we are all required to go out through those exits and out of the building and not to return until we get the all-clear signal. I think that's it for important announcements here.

I'd like to begin today's meeting, second part of our two-day meeting, with the item on the Funding of Agricultural Replacement Measures for Emissions Reductions, or the so-called FARMER Program guidelines.
That was a really good acronym whoever came up with that one.

Emissions from agricultural equipment are a significant source of air pollution especially in the San Joaquin Valley. And reducing these emissions is necessary to meet federal ozone and particular matter air quality standards.

And although increasingly stringent new engine standards will reduce emissions, most agricultural equipment is operated for decades due to the durability of equipment, and the relatively low cost to maintain. And because of the volatility of the agricultural sector, businesses are often reluctant to purchase new equipment, unless it's absolutely necessary.

Unpredictable weather, varying commodity prices, farm size and other factors impact a farmer's ability to purchase new equipment as well. Thus, the natural turnover is not sufficient to meet California's clean air needs.

The agricultural industry, particularly in the San Joaquin Valley, has made significant private investments in an effort to turnover their equipment. But to complement these efforts State incentives are needed for purchasing the cleanest available vehicles and equipment like those that are in the proposed -- that are
proposed in the FARMER Program. And these emissions
reductions, as I said before, are really necessary, if
we're going to meet health standards in the valley. So
we're hearing the guidelines today.

Mr. Corey, will you please introduce this item?
EXECUTIVE OFFICER COREY: Yes. Thanks, Chair.
Incentives have been critical for turning over
legacy vehicles and equipment used in the agriculture.
The agricultural industry and our district partners have
been extremely successful with leveraging private
investments to match public funds resulting in the
replacement of agricultural vehicles and equipment, and
which set the foundation for the FARMER Program.

Funding for the FARMER Program consists of 85
million from the Greenhouse Gas Reduction Fund, 15 million
from the Air Quality Improvement Fund, and 35 million from
the Alternative and Renewable Fuel and Vehicle Technology
Fund. The legislature directed the use of the money from
these three funds to reduce agricultural sector emissions
by providing grants rebates, and other financial
incentives for agricultural harvesting equipment,
heavy-duty trucks, agricultural pump engines, tractors,
and other equipment used in agricultural operations.

The overarching implementation priority for
fiscal year 2017-18 is directing agricultural investments
to support deployment of advanced technologies and cleaner
diesel technologies needed to meet California's State
Implementation Plan and climate goals. The proposed
guidelines detailed CARB's plan for expending funds to
reduce criteria, toxic, and greenhouse gas emissions from
the agricultural sector.

The guidelines describe the proposed funding
allocations for air districts, eligible project categories
and criteria, program implementation details, and the
justification for these investments.

I'll now ask Erin Uchida of the Mobile Source
Control Division to begin the staff presentation.

Erin.

(Thereupon an overhead presentation was
presented as follows.)

AIR RESOURCES ENGINEER UCHIDA:  Good morning.

Today, I will be presenting our recommendations
for the FARMER Program, which stands for Funding
Agricultural Replacement Measures for Emission Reductions.

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AIR RESOURCES ENGINEER UCHIDA:  First, I'd like
to take a moment to set the stage. As you know, CARB has
a suite incentives that focus on two general types of
projects. Projects that are designed to encourage the
turnover of legacy vehicles and equipment to the cleanest
available technologies, and projects that advance
technologies that propel us to a zero-emission future.

Today, we are going to focus on a new program
designed to primarily incentivize fleet turnover in the
agricultural sector, the FARMER Program. This program
will provide incentives to turnover a variety of
agricultural engines, while advancing zero-emission
technologies where feasible.

For example, this is a great opportunity to fund
electric agricultural utility terrain vehicles or, ag
UTVs, which is an important entry point for zero-emission
vehicles in the agricultural sector. The projects funded
under this program will provide criteria, toxics, and
greenhouse gas emission reductions.

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AIR RESOURCES ENGINEER UCHIDA: Agriculture is a
vibrant and critical contributor to California's economy,
and it also has impacts on air quality. These pie charts
show current emissions from farm equipment account for
approximately eight percent of NOx emissions from mobile
sources statewide. This is significant, but in the San
Joaquin Valley, this impact is even greater, since
agriculture is a large part of the economy.

There, in the San Joaquin valley, farm equipment
accounts for approximately 22 percent of the region's NOx
emissions from mobile sources, which is almost three times as much as what's seen statewide.

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AIR RESOURCES ENGINEER UCHIDA: Similar to NOx, PM2.5 emissions from farm equipment account for approximately eight percent of the State's PM2.5 emissions from mobile sources. Whereas, in the valley, farm equipment accounts for over 27 percent of the emissions. These pollutants contribute to poor regional air quality, particularly in the San Joaquin Valley. And therefore, addressing these emissions is an important part of our clean air strategy.

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AIR RESOURCES ENGINEER UCHIDA: The agricultural industry has, and will continue to play, a critical role in getting the emission reductions necessary to meet State and federal air quality and climate change goals. Addressing criteria pollutant and toxic air contaminant emissions from agricultural sources, reduce near sources exposure risk both for agricultural workers and residents in nearby communities. Agricultural incentives have been extremely successful in achieving these emission reductions.

The California Air Resources Board, along with the districts and agricultural stakeholders have
recognized the value of investing in cleaner engines, and have directed funds towards these critical projects for over 20 years.

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AIR RESOURCES ENGINEER UCHIDA: The agricultural industry has made significant private investments to match public incentives in turning over old jalopy vehicles and equipment.

Looking solely at funding through the Carl Moyer Program and the Natural Resources Conservation Service, or NRCS, approximately $1 billion has been invested in ag engines over the last 20 years. Half of that came from private industry. Together, these investments have helped turn over more than 14,000 ag engines in the state.

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AIR RESOURCES ENGINEER UCHIDA: In the San Joaquin Valley alone, over $500 million has been invested through the Carl Moyer Program and NRCS to reduce emissions. However, when you include local funds and additional programs, the San Joaquin valley and its ag stakeholders have invested over $1 billion to research and reduce ag emissions in the valley.

As you know, the San Joaquin Valley is in extreme nonattainment. Because of this, the ag industry was given an emission reduction target to meet through incentives as
part of the regional SIP. They stepped up and sped up the
turnover of their equipment before required, matching
public investments dollar for dollar and exceeding the
valley's existing SIP commitment for emission reductions
from ag.

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AIR RESOURCES ENGINEER UCHIDA: Continued
incentives are critical, but it's also critical that we
continue to innovate with our incentives, especially to
courage participation from underserved farmers. One
example of this is the Ag Trade-Up Project. Developed
with the ag industry and the San Joaquin Valley Air
Pollution Control District, the Ag Trade-Up Project
involves a two-step transaction and is intended for
growers who may not have -- who may not have been able to
access incentives in the past.

Traditional ag equipment replacement projects and
new innovative projects such as this provide crucial
emission reductions from agriculture. However, to meet
air quality standards and California's climate change
goals, a continuing transition to the cleanest available
technologies is necessary. And the FARMER Program is a
great opportunity to continue the agricultural sector's
emissions -- transition to the cleanest available
technologies.
AIR RESOURCES ENGINEER UCHIDA: Next, I'd like to cover the funding goals of the FARMER Program.

AIR RESOURCES ENGINEER UCHIDA: Recognizing the agricultural industry's work and the past success of agricultural incentives, as well as the need for additional progress, the legislature allocated $135 million to the California Air Resources Board.

The funding came through AB 134 and AB 109 to reduce emissions from agricultural engines. The funding comes from three separate sources: The Air Quality Improvement Fund; the Alternative and Renewable Fuel and Vehicle Technology Fund; and the Greenhouse Gas Reduction Fund. Each of these funding sources has its own statutory requirements. To create this new program, we are drawing from all three sets of requirements, which we will talk about in a moment.

In the budget bills, the legislature directed CARB to reduce agricultural sector emissions by providing grants, rebates, and other financial incentives for the category shown on this slide.

AIR RESOURCES ENGINEER UCHIDA: As I just mentioned, the three sources of funding each have separate
but related goals and requirements. For example, the Air Quality Improvement Fund rec -- prioritizes criteria pollutant and toxics emission reductions, whereas, the Greenhouse Gas Reduction Fund prioritizes facilitating and achieving greenhouse gas emission reductions. Therefore, staff proposes to include project types that will reduce all of these emissions.

The Greenhouse Gas Reduction Fund also has AB 1550 requirements, which sets the investment targets for projects within and benefiting low income -- or disadvantaged and low-income communities. For the FARMER Program, staff is applying these investment targets program wide? The targets are a minimum of 50 percent of funds for projects located within and benefiting disadvantaged communities. And five percent of funds for projects within and benefiting low-income communities.

The three funding sources each have various reporting requirements, and staff will combine these requirements to streamline reporting while maintaining verifiable emission reductions. The legislature directed CARB to provide incentives for agricultural vehicles and equipment.

Therefore, staff is proposing to focus funding on regions of the State with large numbers of agricultural equipment. This willow districts more ag equipment to
have the much needed ability to turnover old ag engines. FARMER Program funds must be expended by June 30th of 2021. CARB staff will be closely monitoring to ensure that funds are spent quickly and efficiently.

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AIR RESOURCES ENGINEER UCHIDA: To ensure that the program goals and requirements are met, next I'd like to discuss program administration and oversight.

For the FARMER Program, staff recommends allocating funds to local air districts to administer. Under this model, CARB's duties and responsibilities include distributing funds to local air districts, developing criteria for eligible projects, providing district support, and conducting program reviews and audits.

CARB's responsibilities also include incorporating safeguards in district grant agreements to ensure funds are spent within the allotted timeframe, including moving funding between districts as needed.

Air districts would be expected to conduct outreach, implement projects, and comply with all administrative requirements.

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AIR RESOURCES ENGINEER UCHIDA: Staff's proposed distribution is based on legislative direction and public
feedback. For district funding allocations, staff proposes to allocate 80 percent of FARMER Program funding to the San Joaquin Valley Air Pollution Control District. This is due to the district's high agricultural activity, extreme nonattainment with air quality standards, and significant portion of farmlands that are designated as disadvantaged communities in CalEnviroScreen 3.0.

For the remaining 20 percent of FARMER Program funding, staff is proposing a formula to distribute the funds among local air districts. To help ensure the funds are distributed equitably among the districts, the formula distributes the remaining funds on two factors. The first factor is each district's contribution to statewide emissions from farm equipment to address near-source exposure.

The second factor is each district's air quality and attainment status with national ambient air quality standards to address regional air quality. This results in most districts receiving between 600,000 and just over $2 million. For districts with less than one percent of the statewide emissions from farm equipment, staff is proposing to combine their allocations into a shared pool.

This shared pool with five and a half million dollars would be administered by one air district or the California Air Pollution Control Officers Association.
During the public process, much of the conversation focused on the funding distribution. The original distribution formula used district people populations as an overlay. However, in almost every workshop, we received feedback that the agricultural funding distribution should be based on ag equipment emissions.

Taking these comments under consideration, we revised the formula to focus primarily on ag equipment emissions, but also incorporate each district's air quality and attainment status. We believe our revised formula strikes a balance between legislative direction, public feedback, and regional air quality concerns.

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AIR RESOURCES ENGINEER UCHIDA: Next, I would like to discuss staff's recommendations for eligible project categories.

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AIR RESOURCES ENGINEER UCHIDA: To ensure that funds are spent quickly and efficiently in the first year, we are recom -- we recommend directing investments primarily to agricultural projects that have been successfully implemented in other incentive programs, such as the Carl Moyer Program and Air Quality Improvement Program.
We are looking for a balance of between projects that get the greatest emission reductions and projects that will assist small growers who may be unable to purchase new vehicles and equipment even with assistance from incentives.

Staff proposes including the following project categories: on-road heavy-duty trucks used in agricultural operations; and off-road mobile diesel agricultural equipment, which includes both track -- traditional tractor replacements and the Ag Trade-Up Project in the San Joaquin Valley. The proposed project categories also include off-road mobile large-spark ignition equipment used in agriculture; agricultural irrigation pump engines; and electric ag UTVs. To ensure emission reductions are permanent, projects require the old vehicle equipment or engine to be scrapped.

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AIR RESOURCES ENGINEER UCHIDA: In addition to the project categories just described, staff recommends that the Board grant CARB's Executive Officer authority to approve additional categories or modify existing project categories as needed.

For instance, during the workshops, staff received comments to modify criteria for on-road heavy-duty trucks, which are not currently receiving much
incentive funding in other programs, and can be expensive to replace. In response to stakeholder requests, we are committed to continue working together to develop or modify the on-road truck category to provide a truck incentive tailored to agricultural businesses.

Providing CARB's Executive Officer the ability to approve or modify project categories as needed would enable us to respond to new information while providing a mechanism to ensure funds are spent expeditiously.

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AIR RESOURCES ENGINEER UCHIDA: Upon Board approval of these guidelines, our next step would be to enter into grant agreements with districts this spring and summer. Under this timeline, staff anticipates that funds will be available to farmers and agricultural businesses this summer through their local air districts. Staff will also continue working with interested stakeholders to modify or expand the project categories, such as the on-road truck category just discussed, through a public process then seek EO approval.

The FARMER Program provides a fantastic opportunity to continue the agricultural sector's transition to the cleanest available technologies, while also promoting and enhancing our partnerships with both the ag industry and local air districts.
Staff recommends that the Board approve the proposed FARMER Program guidelines.

Thank you for your time. And if you have any questions, we'd be happy to answer them.

CHAIR NICHOLS: Thanks, Erin. I don't have any questions, but I see that Board Member Eisenhut has his mic on. So I'm going to call on you if you have any comments at this time.

BOARD MEMBER EISENHUT: I do, Chair Nichols. That was intended to be after the public comment.

CHAIR NICHOLS: Oh, okay.

BOARD MEMBER EISENHUT: Sorry.

CHAIR NICHOLS: You're just getting in early then okay. Great.

(Laughter.)

CHAIR NICHOLS: You are the first in line.

(Laughter.)

CHAIR NICHOLS: Okay. We have a list of 20 witnesses. Are they posted yet or ready to be posted, so people know where they are in the queue?

And I see that many of them are here in support, so that's nice. I'm going to ask you to keep your comments brief. We allow three minutes, but we have another item this morning as well. So if you can possibly make it 2, I would appreciate it very much. And we will
begin with Mr. Lemus from the Sacramento Metropolitan Air
Quality Management District.

MR. LEMUS: Good morning, Chair Nichols, and to
CARB Board, and staff. My name is Jaime Lemus and I'm a
senior manager with the Sacramento Metropolitan Air
Quality Management District. I would like to take a
moment to thank the Board for the opportunity to speak to
all of you today in support of the proposed FARMER Program
guidelines.

As mentioned in the letter from our Sacramento
Valley Basin-Wide Air Pollution Control Council to the
ARB, the Sacramento Metro Air District and our four
regional partner districts believe that the transition of
the agriculture industry to cleaner technologies is
critical to achieving key climate change and public health
objectives, air quality, employment and GHG reduction
goals statewide.

Continued funding is needed for realizing
additional emission reductions from this sector, in order
to support these important objectives in our region. The
Sacramento Metro Air District supports this year's
proposed FARMER Program guidelines and revised funding
distributions as we believe they are more aligned with the
FARMER -- with the farm equipment emission inventory in
our region.
I should point out our support for the proposal comes in spite of the net reduction of funding to our district, and in favor of more funding for our partners in our region. We'd also like to commend the CARB Board and staff for continuing to commit grant dollars to agriculture, one of the State's most important industries.

In the Sacramento Valley, we have been able to modernize hundreds of pieces of heavy-duty farm equipment simply by making the clean equipment cost effective for farmers, and we are ready to do more of this with ARB's help. The FARMER Program is an excellent opportunity, and we look forward to working with CARB to put these funds to work for our regional agriculture industry and community to reduce emissions and keep California at the cutting edge of clean low-carbon transportation energy.

Once again, I would like to thank you for the opportunity to speak today.

CHAIR NICHOLS: Thank you, Mr. Lemus.

Mr. Wagoner.

MR. WAGONER: Good morning, Chair Nichols and Board members. My name is Jim Wagoner. And I'm the Air Pollution Control Officer at the Butte County Air Quality Management District. I want to thank you for considering today this very important program that will be getting emission reductions specific to the ag sector. And I
think that's a very important milestone that we're reaching today.

My board is supportive of this program and submitted a letter of support for the record. It should be with your materials. We support allocating funds significantly towards the emission inventory of this sector, which is what the revised proposal does. My district has a current robust Carl Moyer Program in effect. And we've had it in effect for 19 years. The ag sector has been a very active participant in this program of ours, and it's been very much over subscribed, so we know we can do the projects.

We look forward to participating in this program and making it a success. We hope it will continue in future years.

Going forward, we hope that working with staff and CAPCOA, that CAPCOA can -- we work a way that CAPCOA can be an administrator for the $5.5 million that are set aside for the districts that are not getting a direct allocation.

And also we've talked to staff about we think there's a need to go and review the inventory of the ag sector equipment just to make sure that we have the most current information. Again, going in future years, we feel that allocation should be based substantially on the
inventory in the districts.

Thank you again.

CHAIR NICHOLS: Thank you.

MR. JORDAN: Good morning, Chair Nichols, members of the Board. I'm Tom Jordan, with the San Joaquin Valley Air District here to speak in support of the guidelines and to thank ARB for recognizing the huge need in the valley for these funds, and in the allocations.

This is a key component as we move forward to attain federal standards for PM and ozone. It's one of the largest categories along with trucks in the valley that -- for NOx. We've partnered with the ag industry over the years, which is -- as was mentioned in the staff presentation, replaced over 5,000 tractors, with over 30,000 tons of NOx reduced.

Similar programs partnering with the ag industry with ag pumps, we've also replaced 7,000 agricultural irrigation pumps, mostly with electric. So this is -- this program has been a huge success story in how we can move forward with industry and get large emission reductions

So I want to thank you for the allocation, and we are staffed up ready to go. We actually have applications in hand that total more than that allocation is. So we hope to be able to put those dollars to work quickly
Thanks again.

CHAIR NICHOLS: That's great. Thank you.

MR. DESSERT: Good morning, Board Chair. Matt Dessert, Air Pollution Control Officer for Imperial County. We look forward to participating in this program and greatly appreciate the revised allocations. We are a big ag community, big in acres, big in water, low in population. This program specifically will work well for our cattle industry, which is the number one economy in ag industry for Imperial County.

The feed yards have many water trucks designated as ag with low mileage. We're looking at targeting those. We already have a pretty good allocation of projects entirely to take care of this funding amount. As an additional benefit, we believe that those new water trucks, or the tractors that will pull those water wagons, will be used more, and additionally to help us with PM10 non-attainment issues.

So there's additional benefits to it. Thank you again for the opportunity. We've -- are in our 20th year. We've just -- working on our 19th year for Mr. -- Carl Moyer Program. It's a very successful program, and we look forward to additional opportunities in the future.

Thank you.

CHAIR NICHOLS: Thank you.
MR. ISOM: Good morning, Madam Chair, members of the Board.

CHAIR NICHOLS: Good morning.

MR. ISOM: Step back a little bit. Maybe I don't need it.

Good morning. Roger Isom, California Cotton Ginners and Growers Association and Western Agricultural Processors Association.

I want to start by just addressing some of the opening comments by the Chair. One important item that we have to remember about ag is the inability to pass along the cost. It's the difference between the construction folks and the trucking is that we can't that. We're subject to a world market. And so that's what -- that's the difficult. I don't know that I would call our equipment jalopies, Erin --

(Laughter.)

MR. ISOM: -- but it is old, and it's difficult for us to replace it.

But today, we should be -- we should be celebrating. This is a monumental item for us for the agricultural industry and for everybody really. In every instance, where ag has been brought to the table, we have not only met our goals, we've exceeded our goals. We can go back to the conservation management practices for PM10,
where we exceeded what the goal was. We could talk about the tractors as the staff brought up.

We not only met the goal, we exceeded it before the date -- before the rule ever would have went into effect. And the thing to remember is we've never stopped since that point. We have continued to seek out additional funds. This very deal right here was ag's pressure to try to bring more funds to the district, and to the entire state.

This reallocation helps spread that across the state, and continue this funding as we move forward. It is also important to recognize that this not only addresses the criteria pollutants, which for us is the most important item, it is going to help on the greenhouses gas side of it as well.

So it's a historic moment. These numbers that we're talking about today is going to replace a lot of equipment. And it's going to do it before you even adopted the SIP. This SIP is going to be later this year. This money is going to be spent, reductions are going to be generated, and we're already working on subsequent year's budgets to try to make sure that this is continued.

So again, this is a time we should celebrate. Thank you guys for the opportunity to comment, and just encourage you to support as proposed.
Thank you.

CHAIR NICHOLS: Thank you.

MR. PRONSOLINO: Good morning. My name is Dan Pronsolino with Cortina Hulling and Shelling and the Western Ag Processors Association. Cortina operates two large almond hullers in the Sacramento Valley.

And I'm here just to add two additional points. One about the Sacramento Valley specifically being in attainment and the critical role that these programs play in keeping these air districts that currently are in attainment.

Replacing this equipment takes time, and we want to make sure that we preserve the good air quality that we do have in some of these districts. And while we completely support the decision to allocate a majority of these funds to the Sac -- to the San Joaquin Valley to deal with their nonattainment issues, we do want to emphasize the importance of still supporting other air districts that currently have better air quality, so that we can preserve that air quality and stay ahead of the curve so to speak, and not fall into some of the nonattainment issues that have been faced in the San Joaquin.

Also, to comment on something Roger mentioned, the global economy that we all face, particularly with...
almonds, we sell our crop -- a majority of our crop in export, at least with our company, and we do compete about other producers, particularly Australia and the Mediterranean region. And our industry is extremely capital intensive. I know in my career the first time that we brought a large front-end loader in the late nineties, it was a large Caterpillar loader, it cost $128,000. The most recent one we bought cost a little over $300,000.

And that's largely due to the emissions technology that's outfitted on these machines, as well as some other modernization, but that's -- that's a big driving factor.

I'm currently consulting on a large project in Australia. They were able to purchase some Chinese manufactured machines that are virtually identical to the Caterpillars, but they're outfitted with tier zero engines, and they were sold for 68,000 Australian dollars new just in this last month.

So the cheap equipment that they're able to purchase with no emissions equipment gives them an extreme advantage. And while I'm not advocating for that at all, these type of funding programs help us to compete with some of these foreign competitors who are able to purchase equipment that is significantly cheaper, because they are
not complying with these same air emission standards.

So thank you very much for putting this proposal out. It's critical to helping our industry modernize and keep these air quality standards in the Sacramento Valley that we've been able to enjoy.

Thank you.

CHAIR NICHOLS: Thank you.

MR. TONA: Good morning, Chair Nichols and members of the Board. My name is Joseph Tona, and I'm the Air Pollution Control Officer for the Tehama County Air Pollution Control District.

I'd like to thank you for the opportunity to come down here today to support the FARMER Grant Program, that if approved and implemented would result in reductions in emissions from the agricultural operations throughout the State.

Districts are passionate about assisting the agricultural sector in achieving emissions reductions. The Carl Moyer Program and other incentive programs enjoy significant public support by our local communities. Programs like these allow districts to fund projects in a way that is transparent and provide quantifiable emissions reductions to help meet the state's criteria toxic and greenhouse gas emission reduction goals.

Year after year, the Tehama County Air Pollution
Control District's Carl Moyer Program is oversubscribed by about 100 to 200 percent. The FARMER Grant Program would enable us to achieve greater emissions reductions for our local communities and the state. We look forward to working with the CARB staff on this program in the future. Thank you again for this opportunity to comment.

CHAIR NICHOLS: Thank you.

MR. MONTEIRO: Good morning. Darrin Monteiro with California Dairies, Incorporated. I'm the director of government relations.

I want to thank you for our comments earlier, Chair Nichols. You echoed kind of the dairy sentiment right now, right? I mean, dairies are operating right now about 25 percent below the cost of production. And they want to partner in this effort. And the only way to do so is through incentive fundings.

We have dairy liquidation sale happening almost weekly. So without incentive funding, they -- they would not be able to compete in help -- in achieving some of the reductions in emissions that -- that are required of them. I'd like to thank you for the option to speak today, and in support of this program.

Thank you.

CHAIR NICHOLS: Thank you.

MS. CREAMERS: Good morning Noelle Creamers with
the California Farm Bureau Federation.

I want to start by thanking Air Resources Board staff. I know generally when you have new programs, you have a longer time period to be able to implement them. And this has very specific deadlines for when that money has to get out the door. And I really appreciate ARB staff's effort on getting these guidelines before the Board.

This is so important, as you've heard from many speakers, to provide funding to help our farmers and ranchers to purchase new equipment and help clean the air. We are absolutely supportive of the new allocation and appreciate the changes so that more money can get into the districts where the farmers are residing and this equipment is. And we look forward to working with the districts to get that money out the door and get cleaner equipment on the road.

Thank you.

CHAIR NICHOLS: Thank you.

MS. CECIL: Good morning. My name is Colleen Cecil. And I'm the executive director of the Butte County Farm Bureau, a nonprofit agricultural organization in Northern California. It's my honor to represent the farmers and ranchers of Butte County today, who annually provide the foundation for our local economy with farm
gate value agricultural production upwards of $800 million each year, when we farm such crops as almonds, walnuts, rice, cattle, olives, and olives which are used for canned black olives and green olives, and everyone's favorite California olive oil.

I want to thank you for the opportunity to provide comments on the revised funding allocation for the FARMER Program. The Butte County Farm Bureau supports the allocation of funding with 80 percent being directed to the San Joaquin Valley Air District and the remaining 20 percent being shared with counties like Butte, where agricultural emissions are greatest.

In Butte County, you can be certain the funding will be put to good use. Our county has benefited from other programs like Carl Moyer, and we're are confident more of our farmers will participate once the pro -- this program becomes available.

Our area is made up of many small- to medium-sized farming operations with individual owners who, on average, farm 80 to 100 acres. As groundwater is a major source of our irrigated agricultural, irrigation pump engine replacement will continue to be a priority. And as the entire agricultural industry, up and down the state, struggles with finding adequate labor, the FARMER Program will help replace aging and slower harvesting
equipment with newer and more efficient equipment.

As a membership advocacy organization, the Butte County Farm Bureau has already committed to the Butte County Air Quality Management District our support to assist them in getting the word out to our 1300 members, as well as to the agriculture community as a whole about the availability of the FARMER Program, and we are eager to get started.

Besides my role at the Butte County Farm Bureau, I, too, am a farmer alongside my husband where we have a small young walnut orchard in neighborhood Glenn County, where ag is also the primary economic driver. As a young-ish couple, we both work full-time jobs off the farm to be able to maintain our small orchard, where we are raising our two young boys. And it's programs like the FARMER Program that will allow us to farm our 20-acre parcel ourselves, instead of contracting with someone to do it for us, and at the same time passing on a passion for farming to our boys.

We thank the staff for listening to our concerns and appreciate your efforts to see the funds, directed by the legislature to help farms and ranches reduce emissions, be put to work quickly in our agricultural communities.

Thank you.
MR. BUTTNER: Good morning. Paul Buttner with the California Rice Commission.

For all the reasons mentioned by my fellow ag colleagues, I'm just here to support the regulation and appreciate staff's efforts to come up with a good proposal for us today.

Thank you.

CHAIR NICHOLS: Thanks.

MS. PRICOLA: Good morning. Kay Day Pricola. I represent -- I'm the executive director of two organizations, the Coalition of Labor, Agriculture and Business in Imperial County, and also the Imperial Valley Vegetable Growers.

I'm going to pretend this is the Oscars and there's a jet ski for the shortest speech.

(Laughter.)

MS. PRICOLA: First of all, thank -- we'd like to thank the staff for coming to our remote part of the world, and then I'd like to thank everybody for listening. We are the 10 large -- 10th largest ag community. And we thought we deserved a little bit more for the need.

Thank you.

MS. MOHAMED: Good morning, Chair Nichols and Board. My name is Brea Mohamed. I'm the executive director of the Imperial County Farm Bureau.
First of all, I would like to take staff for taking the time to listen to and address concerns brought up during workshops regarding the funding allocation method. Also, thank you for bringing a workshop to the Imperial County where we too were able to have our voices be heard.

During the workshop in Imperial County and during other workshops too, concerns were brought up regarding the formula used to allocate funding for the FARMER Program. We were very thankful that those concerns were heard by staff and the new formula is primarily based off of emissions from ag equipment. This allocation allows funds to be distributed towards productive agricultural areas and provides significant assistance to areas with the most engines that would benefit -- that would benefit from this help.

The FARMER Program funds will be very beneficial to help farmers invest in new trucks and off-road equipment, so that older higher-emitting engines can be removed from use. We appreciate the Board and staff's efforts to getting this program in place and funds available to help farmers and ranchers quickly proceed.

Thank you.

MS. JONES: Good morning. Devon Jones, Mendocino County Farm Bureau. So again, I won't reiterate. We
appreciate staff listening to our concerns from agriculture. And looking at supporting the funding of the allocations from the FARMER Program based on ag equipment inventory.

I have a little bit of a different perspective though from what you've heard this morning is I'm from one of the 18 districts in the one percent. We do have a lot of agriculture in these one percent counties. And the Board is well aware that regulations and compliance requirements are applied across the board whether you're one percent or the other 99.

So for that, I do appreciate the 5.6 million being reallocated and increased for the one percent districts, but I will ask today that a process be established and moved forward so that those districts within the one percent have a clear direction on how to apply for those monies. We do have projects available. For example, in the next couple of years, 100 plus stationary diesel irrigation pumps in Mendocino County are due to be replaced, and they're not cheap.

The average cost for one of our farmers is between $25,000 to $55,000 for a single engine. And for a family farm, most of my members have anywhere from three to eight pumps I'd say on average, so that's not a small cost.
And so the sooner we have that process in place, we can do staggered applications, we can prepare them in time to start working on those replacements.

So for that, I will be quick. I just want to thank the Board for listening to our concerns today, and appreciate getting the program in place. Thank you.

CHAIR NICHOLS: Thank you.

MR. EDER: Good morning, Board. Harvey Eder, speaking for myself and for the Public Solar Power Coalition. On the list today it only lists me. This was true yesterday. Public Solar Power Coalition was not cited with my name, and this isn't right.

Anyway. Support helping farmers and agriculture. I lived on a farm in Iowa when I was 15 for the summer, and I was in the Pardes Matallin[phonetic] in '68, the citrus orchards in northern Israel. My brothers -- and we've got three generations of commercial fisherman in our family up in Oregon.

And I think that our rural areas need to be assisted as much as possible, and that solar should be used. No natural gas or fossil fuels, et cetera. It's against State policy, and we need to work on this and implement this ASAP, as soon as possible.

The fact that you've got more land available is good. Prices on solar from 2010 to 2016 has gone down
like 73 percent. And we're close to -- and looking at future numbers for storage as well. It's come down quite a bit, both battery electric other types of storage as well as thermal storage, which had been dealt with in the past, but is coming up now.

So I would like to encourage CARB to work also with the PUC, and the CEC, and the Office of Planning and Research, the Governor's office, and working on these plans for immediate total solar conversion.

We've got Senate Bill 100, de León. He said that he wished he'd gone for 100 percent in 2030 a few years ago. And that going for 100 percent by 45 a couple months ago, Governor Brown was quoted in the New York Times as saying we could do it by 2040.

Jacobson and Delucchi out of Stanford and UC Berkeley have published by 2030 100 percent from wind, water, and solar and have done -- this was in the November '09 cover article of the Scientific American the month before Copenhagen in '09.

All right. Thank you. Bye.

CHAIR NICHOLS: Bye.

Genevieve Gale.

MS. GALE: Good morning, Board members.

Genevieve Gale, CVAQ and I'm also representing the Coalition for Clean Air today.
I'm in strong support of this program and also your excellent staff that have been leading this effort. I also want to thank the valley's agricultural industry for bringing money to the region. And also give props to the San Joaquin Valley Air District. They do run a well-oiled incentive program machine. And they're ahead of the pack when it comes to program innovation.

I'm in strong support of the act -- of Ag Trade-Up Program. And I must mention they've just implemented a new Truck Trade-Up Program that I think is going to do some great things for the valley.

Mr. Corey, you have the opportunity to include additional project types. So I'd like to suggest electric tractors, and solar pumps and on-farm solar infrastructure. And if perhaps we could think a little more creativity -- creatively, what equipment is needed to reduce agricultural burning in the San Joaquin Valley. Do we need chippers? Do we need equipment to reincorporate wood waste into the soil? Perhaps, we can think a little more broadly there.

But, in general, I'm in support. And perhaps working with the district in the future, we can target some of this outreach and technical assistance to small farmers and farmers of color, and also the upper -- the owner/operators of small trucks.
But thank you all for this.

CHAIR NICHOLS: Thank you.

MR. HAMILTON: Good morning, members of the Board. Kevin Hamilton, Central California Asthma Collaborative.

I wanted to echo and affirm Ms. Gale's comments. I'm not going to repeat them. I think these are great programs. I want to support the measure as proposed. I appreciate giving the Executive Director the leeway to be able to adjust as we move along with these things. That's often not available, and I think it's critical.

I do want to reiterate the piece about when we're talking about pumps, there's a lot of issues around electrifying pumps that have to do with PUC standby charges and the extreme cost associated with that. It's caused a lot of our farmers to move back to diesel pumps because it's just -- they can't make it pencil out. So this idea of solar islands for pumps should be explored, piloted, and determined if that can be cost effective and work in this situation.

I do want to reiterate also that we need to do the outreach to small farmers. I want to thank staff for traveling down to Fresno to meet with the EJ group that we put together at our offices, and to take comments on this and to work -- commit to working constructively with us on
this moving forward to make sure we get that money out
there to our small farmers as Commissioner Eisenhut has
mentioned in the past. We have poorer farmers out there,
Latino farmers, Hmong farmers who are small at -- are
farming small pieces of acreage and using tier 0 equipment
that has been around for five generations, and we need to
help them plus-up and get into some newer stuff.

So thank you very much. Appreciate your time
today.

CHAIR NICHOLS: Thank you.

MR. BROWN: Madam Chair, members of the
Committee. Louie Brown with Kahn, Soares & Conway. We
represent a number of the ag organizations that testified
today and others that weren't able to make it here to ask
for your support of the resolution, to thank staff, and to
realize that this is the third piece of a comprehensive
greenhouse gas reduction financial strategy put forth by
the administration.

We've already seen the implementation of funding
for methane digesters to reduce methane emissions in the
dairy industry. Our food processing seg -- sector is
working with the California Energy Commission to improve
their practices and reduce their emissions, and then
today's funding piece will bring all of that together by
allowing the San Joaquin Valley and other agricultural
areas within the State to continue these strong and important incentive programs that result in real emissions, and really move us forward in achieving our goals.

So again, recognize the hard work that staff has done to put this together in a very short period of time and we ask for your support on the resolution today.

Thank you.

CHAIR NICHOLS: Thank you.

MR. CUNHA: Good morning. Manual Cunha with the Nisei Farmers League, also represent the California African-American Farmers, and the National Hmong Growers that are located in the five counties of the San Joaquin Valley. First, I want to thank the staff.

But, Madam Chair, I'd like to take a moment of silence, if we could, for a young lady who made all of this happen in meetings with the Governor by the name of Nancy McFadden who just passed away. And a wonderful lady, all the way till the very end. You couldn't have asked for a better person to bring ag and the Governor, Richard Corey, and others to that room that day to come up with this plan to get this thing through. So if we could take a moment of silence I'd appreciate that.

CHAIR NICHOLS: Mr. Cunha, I had planned to do it right after we finished this item, but we -- I'm happy to
do it now. Let's do it.

MR. CUNHA: Okay. And I'll make comments short after this. Okay. Thank you.

(Moment of silence for Nancy McFadden.)

MR. CUNHA: Thank you very much.

At this time, I want to thank Richard Corey and Kurt, especially Richard for all the time driving down in the rain and the hail and everything else that we've had in the valley. Thank, God, we're getting water. I use that carefully too.

Also, Lucina, Michelle, and Erin, you three ladies, are incredible. You have a great team. They've met with agriculture many times to come up with several big programs. The Tractor Replacement Program, Equipment Replacement Program. Agriculture puts in anywhere from 50 to 60 percent of their own money. So this is not a free program.

The next program was the trade-up. The Tractor Trade-Up Program is the first one of its kind in the country, taking a tier 3 tractor, rather than cutting it up, giving it -- or not giving it, a farmer pays for it. We took that money that they got for that tractor to begin with and we move it to another farmer, who has a tier 0 that would never be able to buy a new one. I don't care what anybody said. So that program is tremendous in the
Tractor Trade-Up Program.

The third is our partners. You as ARB, Carl Moyer, all the work that Richard and everybody else has done to bring revenues in.

NRCS, Natural Resources Conversation. In 2002, we started with five million for air with -- for the State. Today, we have an average of $19 million comes to the San Joaquin Valley for equipment replacement through USDA as a partner with your funds.

So, at this time, I really support the effort, especially the staff's hard work. It's been a tremendous partnership. And if it isn't, then somebody's missed the boat, because it has been an honest partnership. No one is trying to get rid of the farmers. We feed the world, and we do a great job at that.

And my last thing on this is on this replacement program, it has to be voluntary. Farmers, we achieve the goal very well.

And my last comment is I want to make something. I just got back from New York. We have a welterweight title champion of the boxing world, 140-pound Jose Ramirez from Avenal won the world title at Madison Square Garden, who represented and fought for water, and fought for immigration, and is still fighting.

So, Madam Chair, sorry for the few minutes over.
Thank you.

CHAIR NICHOLS: Thank you. You're excused
(Laughter.)

CHAIR NICHOLS: Mr. Ayerza.

There's a special Manny Cunha exemption to the
time limit.
(Laughter.)

MR. TODD AYERZA: Good morning. My name is Todd
Ayerza. I'm with Campos Brothers. I help manage a
mid-sized farm in the Central Valley, San Joaquin Valley.
And I just want to first say how much we appreciate these
programs that help us reduce emissions.

We started way back in '04, '05, I believe with
the AG-ICE Program to help eliminate all of our diesel
wells. More recently, the Tractor Replacement Programs to
get rid of our tier 0, 1 tractors. And then just this
past year, we got involved in the Tractor Replacement
Program. We had tier 3 tractors that we would have never
dreamed of getting rid of. We keep our tractors
historically for 15, 20 years. But this -- we were able
to do that and pass these on to the smaller farmers.
Anyway, just that. And we appreciate it. Thank you.

CHAIR NICHOLS: Thank you.

MR. JOSEPH AYERZA: Good morning, staff. Thank
you very much for all your partition in these programs.
My name is Joseph Ayerza. I'm with the John Deere dealership at Fresno Equipment in the Central Valley. We handle Madera and Fresno County.

And I just want to tell you how important these programs are for us, and for our customers, and, of course, yours customers.

These voluntary programs make a difference and an impact in getting rid of tier 0s and tier 1 tractors that are just gross pollutants out there and bringing in a emissionized equipment. It makes a difference in impacting the PMs and NOx in the Central Valley, and it's very important.

And I just want to thank the staff members and the San Joaquin Valley Air District. They are very great to work with, and just appreciate everything.

Thank you very much.

CHAIR NICHOLS: Thank you.

We have one more witness.

MS. APODACA: Good morning. My name is Lori Apodaca. I'm the director of regulatory affairs for California Citrus Mutual.

Our board and our members are very excited about this program. We represent over 2,500 growers in the State for Citrus. The majority, of course, are located in the Central Valley in Fresno, Tulare, and Kern County.
And a lot of our growers, there are small family growers. Some are just starting out, some have been in citrus for many years, but they face challenges. We have HLB, which is a fatal disease for citrus trees that we're currently combating, and then we also have a water shortage, of course.

And while some growers can weather that, we have a lot of the smaller growers who can't. And so they're not thinking about replacing equipment. They're thinking about maintaining that equipment so they can use their money to spend buying water.

And so this is -- this is I think going to be a really good program. I'm new to California Citrus Mutual, so I haven't met all of you, but I'm sure you all know Joel Nelsen.

So I look forward to working with you and sharing this great, great program with our growers.

Thank you.

CHAIR NICHOLS: Thank you.

So that concludes our list of witnesses. And we'll go next to Board Member Eisenhut.

BOARD MEMBER EISENHUT: Thank you, Chair Nichols. Well, this should be easy. We've heard the chairman's comments. We've heard from all of you. And I had hoped, as I looked at the sheet, that Kevin had checked the wrong
box, and it turned out that was the case, as we heard his
defendant

    MR. HAMILTON: I checked the box?

    (Laughter.)

    BOARD MEMBER EISENHUT: I just want to indicate
my strong support for this program. I appreciate the way
it's designed, the allocation -- the allocation is
impactful where there is a need, and where there is a
presence of equipment. And so I support that allocation.
I particularly support the Trade-Up Program for the
reasons that we've already discussed. I think there is
a -- I sense, and I've heard, there is a significant
population that intersects with the environmental justice
population of small farmers who have that, yes, that tier
0 jalopy tractor that --

    (Laughter.)

    BOARD MEMBER EISENHUT: -- and lack the resources
jalopy to trade up. And so this program will allow that
to happen.

    I do have a question. The Executive Director has
certain amount of authority. If that three million is
oversubscribed, does his authority allow transferring
additional funds to that program?

    Thank you.

    MSCD OFF-ROAD AGRICULTURAL STRATEGIES AND
INCENTIVES SECTION MANAGER BUFFINGTON: Good morning. Oh.

CHAIR NICHOLS: Sorry. Go ahead.

MSCD OFF-ROAD AGRICULTURAL STRATEGIES AND

INCENTIVES SECTION MANAGER BUFFINGTON: This is Michelle Buffington. To address your question about the $3 million for the Ag Trade-Up Program, that money was programmed into the trade up in '16-'17. The new '17-'18 allocations we don't have specific bins for them to spend it on.

BOARD MEMBER EISENHUT: Okay.

MSCD OFF-ROAD AGRICULTURAL STRATEGIES AND

INCENTIVES SECTION MANAGER BUFFINGTON: So once they have expended the $3 million from '16-'17, we anticipate that San Joaquin will continue to feed that program with some of their '17-'18 funds.

BOARD MEMBER EISENHUT: Okay. Thank you.

CHAIR NICHOLS: Okay. Well, this is one of those rare days. Yes. You didn't pop up on the screen.

Now you do. Okay.

(Laughter.)

CHAIR NICHOLS: Dr. Sherriffs.

BOARD MEMBER SHERRIFFS: I'm challenged when it comes to these electronic devices.

(Laughter.)

BOARD MEMBER BALMES: And he's even a farmer.

CHAIR NICHOLS: I know.
BOARD MEMBER SHERRIFFS: Yes.

CHAIR NICHOLS: You may have a conflict of interest.

(Laughter.)

BOARD MEMBER SHERRIFFS: Yes, I have a conflict of interest, but I'm not planning on applying for any of these funds.

You know, this is a great example of, you know, we think of farming as conservative. No, no, farming is innovative, farming is into investment, but people in farming have to be careful because there's so much that's not controlled. And weather and the global markets are just a couple of examples. But farmers are eager to find the next best thing, find a way to improve what's being done. And this clearly is an example of that on a statewide basis.

The co-benefits are obvious, in terms of air quality issues, greenhouse gases. And it's why the lion's share of this goes to the Central Valley because of the air quality issues.

But, yes, this needs to be distributed throughout the State and to engage farming operations throughout the State. And staff has done a good job of reallocating and wrestling with that issue.

You know, I know we're not supposed to compliment
staff, but --

CHAIR NICHOLS: Oh, it's okay. You can do it.

BOARD MEMBER SHERRIFFS: But -- well --

(Laughter.)

BOARD MEMBER SHERRIFFS: -- you know, yesterday
one of our big themes was let's not delay. Why are we
pushing things back? How can we move them forward? And
this is an incredible example of moving things forward and
going money spent not next year or the year after, but
this year. And that reflects on staff's hard work,
staff's going out, and to the response the ag industry
being able to be there and respond. So it's a great
example. It's a great example.

And this is particularly important because this
is not a one shot. There are -- we anticipate ongoing
funding, and we're going to be coming back next year and
looking at this. And so we need to build on these
successes. So it's yet another reason why it's important
to get that money out the door, see what's working, see
what's getting us the most benefits. And it's a great
compliment to a number of districts that have been able to
organize and they're ready. They're not going to plan
once we say, yes. No, no they're ready. If we say yes,
it will happen this afternoon. So that's -- that's --
that's wonderful.
Just thinking again this is ongoing, and I think there have been some great suggestions of things we need to think about. Yeah, the Trade-Up Program is likely to be very successful. Great bang for the buck. And so probably looking at how we're going to expand funding for that in the future. And some great suggestions about, yes, how do we integrate more in terms of electrification of solar, and is there a way that this is going to help us in terms of ag waste management? And so thinking creatively in terms of the future. So thanks to everyone for their participation.

I'm sorry, staff, that I complimented you and called you out.

(Laughter.)

CHAIR NICHOLS: Thank you.

Judy Mitchell.

BOARD MEMBER MITCHELL: Thank you.

A couple of comments were made that I think bears some merit. And I don't know whether we have ever done an ag equipment inventory. Staff, have we done that?

MR. HAMILTON: We asked for it.

(Laughter.)

MSCD OFF-ROAD AGRICULTURAL STRATEGIES AND INCENTIVES SECTION MANAGER BUFFINGTON: Yes. Actually, in 2008, staff conducted a statewide survey to build an
agricultural inventory. There is a high level version of that posted on-line. And that's what we actually used to do -- to build our distribution formula. But we have heard from the stakeholders and from the air districts that there is some -- they would like for us to update it. And so staff is working towards figuring out the best way to go about building up the next inventory.

BOARD MEMBER MITCHELL: Good. I think that that would be good program. And since we're looking at a Trade-Up Program, it would be sort of be the bedrock of a Trade-Up Program, you know, where equipment is, and you can get rid of 0 -- tier 0 jalopies, as we've been calling them, and move up to a higher grade. So I think that's a great idea.

Thank you, staff. I'll put that in there too. And I'm very supportive of this program. San Joaquin is a nonattainment area that shares that distinction with my district. And I think we really need to put money into San Joaquin to help them reach attainment. So I'm very supportive of this.

CHAIR NICHOLS: Okay. I do not see any other speaks in the queue. So I think we can proceed to a decision. I can't resist adding just one thing, which is that I think this will be -- were you ready to -- waving at me.
BOARD MEMBER Balmes: No, no. I was ready to make a motion.

Chair Nichols: Oh, okay. You could -- I just want to say one other thing, which is that the source of the funds -- the principal source of the funds is the Greenhouse Gas Reduction Fund, which is now ongoing thanks to legislation that was really shepherded through the legislature to the two-thirds vote that it needed by Nancy McFadden. So I wanted to close the loop on that -- on that. And it's going to come up time and time again as we go forward, I think, over the months ahead, that her finger prints are on so many of the good things that we get to do. So thank you for the -- for that.

And now, would you like to make a motion?

Board Member Balmes: And before I make the motion, I would like to say this is well spent money from the Greenhouse Gas Reduction Fund.

So I would move that we accept the staff proposal.

Board Member Sherriffs: Second.

Chair Nichols: And a second.

All in favor please say aye?

(Unanimous aye vote.)

Chair Nichols: Any opposed?

Any abstentions?
Seeing none, it is unanimously adopted. And thank you all, staff. Good job.

And I echo the praise in terms of your going out and consulting too. That was really -- it helped to get us to this point, so thank you.

I'm going to race along without a break here, because I know we're in danger of losing at least a couple of our members who have other obligations. So let me just start the -- start with the opening statement before the staff are fully in place.

The next item on the agenda is Item 18-2-9, a public hearing to consider the proposed regulation for prohibitions on use of certain hydrofluorocarbons in stationary refrigeration and foam end-uses.

The Board will consider a regulation to reduce emissions of hydrofluorocarbons, or HFCs, which are powerful short-lived climate pollutants. The proposed regulation is to adopt as California regulations something that had been a federal prohibition on the use of certain high global-warming potential HFCs in stationary refrigeration and foam end-uses.

This sounds very technical and difficult to pronounce, but it's very important stuff when it comes to the immediate threat to our climate.

The federal restrictions however were recently
vacated by a court, and the proposed regulation ensures that, at least in California, we will be able to maintain their emissions benefits.

Mr. Corey, would you please introduce the item?

(Thereupon an overhead presentation was presented as follows.)

EXECUTIVE OFFICER COREY: Yes. Thanks, Chair.

SB 1383 authored by Senator Ricardo Lara also required CARB to approve and implement a plan to reduce emissions of short-lived climate pollutants by 40 percent below 2013 levels by 2030. You approved that plan spelling out a strategy for reaching the HFC emission reductions targets previously.

The U.S. EPA's Significant New Alternative Policy, or SNAP, Program rules 20 and 21 were a critical part of this strategy accounting for approximately 20 percent of the HFC emission reductions needed.

However, on August 8th, 2017, in Mexichem Fluor, Inc. versus EPA, the D.C. Circuit Court of Appeals ruled that U.S. EPA does not have authority to require companies to replace high global warming potential HFCs with lower global warming potential substitutes under rule 20.

In light of the court ruling, California can no longer rely on U.S. EPA's SNAP Program rules as a originally stated in the Short-Lived Climate Pollutant
Strategy. In order to preserve HFC emission reductions in California expected from the U.S. EPA's SNAP Program rules, CARB is proposing to adopt key prohibitions from U.S. EPA SNAP rules into State law.

I'll now ask Glenn Gallagher of the Research Division to begin the staff present.

Glenn.

STAFF AIR POLLUTION SPECIALIST GALLAGHER: Thank you, Mr. Corey. Good morning, Chair Nichols and members of the Board.

Today, we will present Board Item 18-2-9, a proposed regulation for prohibitions on use of certain hydrofluorocarbons in stationary refrigeration and foam end-uses. The intent of the regulation is to preserve and continue in California some of the U.S. EPA's prior prohibitions on high global warming hydrofluorocarbons.

Last year, a decision by the D.C. Circuit Court of Appeals limited U.S. EPA's authority in this area.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: In today's presentation, we will provide background information on the need for regulatory action, describe the proposed regulation, and conclude with our recommendation for 15-day changes.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: First, some background on hydrofluorocarbons and their emissions.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER:

Hydrofluorocarbons, or HFCs, are potent short-lived climate pollutants with global warming potentials hundreds to thousands of times greater than carbon dioxide.

For example, just one pound of R-404A, an HFC refrigerant used in supermarkets, has the global warming potential of almost two tons of CO2, equivalent to driving a car more than 4,000 miles.

Fortunately, alternatives with lower global warming potentials are commercially available with some in very wide usage.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER:

Currently, HFCs comprise four percent of all greenhouse gas emissions in California. However, they're the fastest growing source of greenhouse gases in our state and throughout the world. Without further controls, HFC emissions will double in 20 years.

In 2016, Senate Bill 1383, authored by Senator Lara, established a goal to reduce HFC emissions 40 percent below 2013 levels by 2030.
STAFF AIR POLLUTION SPECIALIST GALLAGHER: In 2030, under business-as-usual conditions without further regulations, we estimate that almost 80 percent of HFC emissions will be from stationary refrigeration, and stationary air conditioning.

Including mobile AC and transport refrigeration, refrigerants make up more than 90 percent of HFC emissions. To a lesser extent, HFC emissions also come from aerosol propellants, foams, solvents and fire suppressants.

STAFF AIR POLLUTION SPECIALIST GALLAGHER: This chart summarizes the short-lived climate pollutant strategy for HFC reductions adopted by the Board last March. Business-as-usual emissions are about 27 million metric tons of CO2 equivalents in 2030.

The SB 1383 goal shown in green means that California must emit no more than 10 million metric tons of CO2 equivalents by 2030. Attaining this goal is 10 percent of the entire greenhouse gas reduction strategy described in the scoping plan adopted by the Board last year.

The top of the bar chart shaded in light blue shows potential reductions of 26 percent that can achieve
by the international Kigali amendment or HFC phase-down, if ratified by the United States. An additional 24 percent reduction was expected from the U.S. EPA's SNAP rules shown in orange.

The remaining emission reductions shaded in pink must be achieved by additional CARB regulations.

Now, we'll update you on these three different strategies.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER:

International efforts to reduce HFCs will be achieved by the Kigali amendment to the Montreal Protocol to phase down the production of HFCs, eventually applying to all countries.

The first step of the phase-down applies to developed countries and begins next January. The United States signed the Kigali amendment in November 2016, but has not yet taken action to ratify it through the U.S. Senate. And if ratified, it would still need to be implemented by the U.S. EPA.

Although the Kigali amendment should significantly reduce HFC emissions by 2050, it will not be sufficient by itself to help California achieve its SB 1383 reduction goal by 2030.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: EPA's Significant New Alternatives Policy, known as SNAP, implements section 612 of the amended Clean Air Act of 1990, which requires EPA to evaluate replacements for ozone-depleting substances to reduce overall risk to human health and the environment. These replacements include HFCs.

EPA applied this authority to prohibit high global warming potential HFCs in new equipment and materials as viable lower GWP alternatives became available. However, last year, the federal D.C. Circuit Court of Appeals decided that EPA cannot require replacement of HFCs in many circumstances.

CARB staff would support EPA reading the decision narrowly and adopting national HFC rules under their other existing authorities.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: California was relying on the SNAP rules to meet 24 percent of our HFC reduction goal, leaving us with an emission reduction gap of more than four million metric tons of CO2 equivalents.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: SB 1013, the California Cooling Act, authored by Senator Lara

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is currently awaiting hearing in the Senate Environmental
Quality Committee, and would place all of the SNAP HFC
prohibitions into State law.

In contrast, the proposed regulation under
consideration today would preserve emission reductions
from select sectors with past or shortly upcoming
effective dates, but does not backstop all of the
potential losses due to the court ruling. A future HFC
rulemaking will cover additional measures identified in
the SB 1383 short-lived climate pollutant strategy.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER:
Fortunately, the HFC reductions needed are
achievable because refrigeration technology has become
increasingly green. Refrigerants have transitioned from
ozone depleting and high global warming to non-ozone
depleting and low global warming. These low GWP
refrigerants include hydrofluoroolefins, or HFOs, and
natural refrigerants, such as carbon dioxide, ammonia, and
hydrocarbons.

Natural refrigerants have been used in -- have
been in use today since the 1800s and are used in
thousands of retail food stores today.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: The
global transition to low global warming potential refrigerants is well underway. The European Union is currently implementing more ambitious HFC reduction measures than those proposed here.

Canada recently adopted measures similar to the aforementioned bill, SB 1013. Australia and Japan also have HFC reduction programs. Most of the affected industry serve a global market and are preparing for one low GWP solution, and many manufactures and users in the U.S. have all already adopted lower GWP technologies.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: Now, I'll describe the proposed regulation

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: The proposed regulation focuses on commercial refrigeration equipment and foam types with past and shortly upcoming compliance dates under the partially vacated SNAP rules, and will prevent backsliding of manufacturers from using high global warming HFCs again. Most manufacturers have already transitioned or begun the transition to lower global warming alternatives.

The regulation would make the SNAP prohibitions enforceable in California with an estimated 3.4 million metric tons of CO2 equivalent reductions annually by the
year 2030.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: The proposed regulation applies mainly to equipment manufacturers. Prohibited HFCs may not be placed into new equipment and materials that are sold, used, or entered into commerce in California for the following end-uses:

- Supermarkets and remote condensing units, which are small refrigeration systems used by convenience stores; refrigerated food processing and dispensing equipment, for example, slurpee machines and frozen yogurt dispensers; stand-alone or small self-contained refrigeration units, also known as plug-ins; refrigerated vending machines; and foams used in buildings and other uses.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: This chart shows the end-uses from the previous slide, and lists the HFC prohibition date, along with the current industry status for HFC replacements. All of the end-uses have available alternatives today.

The preferred alternative for vending machines is propane refrigerant, which is not allowed in some locations.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: The requirements of the regulation are largely the responsibility of the manufacturers who cannot use prohibited HFCs in new refrigeration equipment or foams. Record keeping of the types and numbers of equipment entering California are required of all manufacturers.

A disclosure statement must certify that the product uses only compliant refrigerants or foam expansion agents.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: The total cost of this regulation statewide is estimated at $4.25 million over 20 years, or about $210,000 per year across all manufacturers to comply with the HFC prohibitions, as well as the record keeping and disclosure statement requirements.

The Greenhouse gas reduction cost is less than $1 per metric ton of CO2 equivalent reduction.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: Stakeholders generally support CARB's efforts to preserve the SNAP prohibitions because it provides more certainty to industry. Many manufacturers have already made significant investments in using alternatives to high global warming HFCs. Some stakeholders would like CARB to
adopt all of the SNAP prohibitions. We focused on the past and shortly upcoming prohibitions. Senate Bill 1013 would cover the entire program.

Other stakeholders express concerns. Several requested clarification that record-keeping requirements only apply to the original equipment manufacturer, and that the effective date of the HFC prohibitions applies to the date of manufacture and not installation.

These were always our intent, and these and other clarifying edits will be added through 15-day changes.

Also, some manufacturers wanted additional time to comply. However, approved refrigerants are available today.

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STAFF AIR POLLUTION SPECIALIST GALLAGHER: Staff recommends approval of this proposal with 15-day changes. This concludes the staff presentation. We will be happy to answer any questions from the Board.

Thank you.

CHAIR NICHOLS: Are they any quest -- are there any questions before we go to the public?

Seeing none.

Let's go ahead with our witnesses then beginning with Mr. Messner.

MR. MESSNER: Good morning. So I'm with the
Association of Home Appliance Manufacturers. We represent, in this case, refrigerators that are in everybody's homes, so they're not actually impacted by today's, but I wanted to -- so that's why I was neutral, but I wanted to speak because of the HFC interests that we have going forward.

So refrigerators -- a reminder refrigerators in every home. They're the centerpiece of everybody's home. They're actually -- Royal Society said they're the best invention in history. They preserve food, vaccines, and they're also the most honored place for artwork, if you have a magnet to put artwork up.

(Laughter.)

MR. MESSNER: So we, as an industry, we actually want -- are willing and want to go to isobutane, and have been for many years. There are things that have stopped us from getting there along the way.

And so we're in a position of we have said yes, yes, yes. And we keep getting things thrown in front of us that prevent industry from doing that. EPA allowed isobutane to be used. And then there are now charge size issues. Europe, you can use 150 grams of refrigerant in refrigerator. In the U.S., EPA restricts it to only 50 grams.

And so this is -- we need that increased in order
to move forward before we can set a date, because we need
time to redesign, train -- train people, because these are
flammable refrigerants and we don't them in the home,
children and everything, and there's repair -- it needs to
get repaired in the home.

We want to do it. We petitioned EPA for this
substituted. We worked with UL.

So my ask here is to please, as you go forward in
phase 2, please be focused on the data, the science, which
I think you're -- we're having good conversations with
your program people. But I am -- the reason -- I wasn't
even going to come today, but I'm nervous on the political
side. There's no -- we don't want a political battle. We
don't need a political pounding of the chest. We just
want to roll up our sleeves and get it don't.

And there are legi -- there's legi -- when it's
in the legislature, there's political dates. Like,
it's -- everything that's done in SNAP on January 19th,
which is the day before Trump Administration. We need to
be flexible so we can have a U.S./Canadian solution that's
good for us. We want a U.S./Canadian market, and it's
good for the climate.

And we're working with Canada. We're working
with EPA. They actually did a rule to increase the charge
size for us. So it's all working together. It
unfortunately got stopped by an adverse comment by a
couple individuals in New York. So we have to go through
now another rulemaking. It's an unfortunate -- it was a
un -- it was a noncontroversial way to do the rule -- a
direct final rule through -- so Administrator Pruitt was
able to do that for us, but then that means that if
there's any adverse comments over the matter, it cancels
it.

So I just encourage you to please stick to the
data and please let's all work together. We are a willing
partner, but we can't just leap onto dates before we get
other barriers resolved. And we want to get there. So
please just continue to work. Keep the legislative shop a
little more reined in.

(Laughter.)

MR. MESSNER: Okay. Thank you.
CHAIR NICHOLS: Thank you. Yes, Hector.
BOARD MEMBER DE LA TORRE: Excuse me.
Excuse me. Did you say it was flammable?
MR. MESSNER: Yes.
BOARD MEMBER BALMES: Isobutane big time. Big
time.

MR. MESSNER: Yeah, it's -- isobutane is like
propane. These are flammable refrigerants. They're used
everywhere in the rest of the world, but that's -- so in
order -- the flammability they're A3 flammable refrigerants. And so they're used in refrigerators throughout the world. They weren't allowed in the U.S., but they're allowed in Canada.

But, yes, there's only about three cigarette lighters worth of refrigerant in a refrigerator. But -- so, yes, but they are flammable.

BOARD MEMBER BALMES: Just to remind you, hydrogen is flammable too.

(Laughter.)

BOARD MEMBER DE LA TORRE: Yes.

CHAIR NICHOLS: Okay. Thank you.

MR. MESSNER: Any other questions?

(Laughter.)

CHAIR NICHOLS: Always a good reminder.

Mr. Eder.

MR. EDER: Hello there again. Harvey Eder for myself and for the Public Solar Power Coalition. Solar cooling and refrigeration, is the lifecycle cost effective? It should be implemented. And supporting SNAP and that portion of the proposal -- and in reference to Senate Bill 1383, besides HFCs, they're dealing with methane, which yesterday I brought to you current information.

And in the Low Carbon Fuel Standards, there's a
big push for renewable natural gas. There's drug
resistant antibiotics that are put from the landfill, the
sewer, and animal feed systems waste that's put into the
natural gas distribution system.

Methane should be buried preferably, put in the
ground, kept in the ground, burned secondary, but never do
you use -- just emitting it into the air as the Low Carbon
Fuel Standard does to subsidize renewable natural gas.
And it's imported. And 90 percent comes from fracking.
I've been dealing with this for over 10 years with the
staff, and I was told that there was no fracking in the
state and this kind of thing. Anyway, it has to be
revisited, the issues of natural gas and 1383.

And solar refrigeration cooling, air conditioning
whenever possible. I know that they mentioned things like
using carbon dioxide. You've got to be like 6, 8, 10
times the equipment. So, anyway.

That's all I have to say about this for now.
Thank you. Bye.

CHAIR NICHOLS: Thank you. Okay.

MR. HAMILTON: Good morning again. Kevin
Hamilton, Central California Asthma Collaborative. I do
want to put on the public record that I made a mistake and
filled out the oppose cards on two things.

(Laughter.)
MR. HAMILTON: I've asked staff to correct that. I support both of these things.

CHAIR NICHOLS: Thank you.

MR. HAMILTON: That's terrible, isn't it?

CHAIR NICHOLS: They may have just done it without even consulting you.

MR. HAMILTON: Yes, don't be running my time on that. He's making me laugh.

(Laughter.)

MR. HAMILTON: So with regard to HFAs. In another life, interestingly enough, as Machinist's Mate, I came out of the service knowing how to do refrigeration. When I came to California, it's what I did for the first six years I was here. I actually started and ran a company in Newhall of my own doing refrigeration.

So I'm very familiar with the industry, the challenges it faces. These systems tend to be very vulnerable to leaks over time. As we move from our R22, R14, and some of the other refrigerants into C -- into HFCs, the industry screamed loud and long that this was never going to -- it was going to drive us under. It's this and that, and now we have HFCs everywhere.

This is another one of those transitions that we have to make. In fact, these gases are significant short-lived climate pollutants. Their power is
incredible, and they're ubiquitous throughout our society, especially in California, and in the San Joaquin Valley, where we rely on refrigeration for our crop storage, right? And everybody has a grocery store or somewhere near their neighborhood. I won't say in their neighborhood, because we have a lot of neighborhoods unfortunately that do not, but again, a ubiquitous refrigerator.

It is interesting that there are other ways to refrigerate things. You mentioned the isobutane. When I grew up, a lot of the old farms had old refrigerators that ran on natural gas, interestingly enough, with ammonia. So that's old school. That's the way it was. An air conditioning company in Sunland actually created an air-conditioner called -- a company called Arctic Level AC that would air condition your house much more efficiently for a third of the price you paid for a regular HFA based refrigerator, and ran on 110 volts, which is fascinating to me.

Also, they -- you can use electricity through a process to create refrigeration. So we really need to be going deeper down that pathway. I only know this, because my brother smoked. He smoked Marlboros, and you can could get all these little credit things. And it turned out you could get a cooler that you could plug into your cigarette
lighter in your car that was an electric refrigerated cooler, and it actually cooled. I still have no idea how it worked. I didn't want to cut it up and take it apart. Well, I actually did want to do it, but I didn't, so...

(Laughter.)

MR. HAMILTON: But the point is that this technology is there. We need to continue exploring this new technology. Refrigeration is key to our survival as a society. I agree that it's probably the greatest invention we ever had to both prevent disease and ensure that our population could spread be healthy. So we need to make sure we don't kill that industry. Yet, we need to move forward into this new area. So I support this. CCAC supports this resolution.

CHAIR NICHOLS: Thank you.

BOARD MEMBER BALMES: Kevin, I thought I knew a lot about you, but I didn't know about your previous life as a refrigeration guy.

(Laughter.)

MR. HAMILTON: I didn't go to college till I was almost 30 years old, so...

(Laughter.)

CHAIR NICHOLS: This is -- it's an extremely interesting topic though in terms of the global problems
of trying to keep things cold and what people are trying. So go ahead.

MR. MORRIS: Good morning. My name is Tom Morris. I'm with Honeywell. First, I want to thank CARB staff for their thoughtful and diligent efforts on this issue. I'm here today to say that Honeywell strongly supports the proposed regulation, but urges CARB to take further action to include other phase-out dates set in the SNAP rule 20 and 21 for all applications addressed by those rules.

Doing so would provide certainty for California businesses and continue the transition to low global warming refrigerants. We applaud CARB's leadership in taking steps to reduce HFC emissions, but we believe CARB should take the following additional actions that will have an immediate environmental impact, and send a clear signal that California will continue to support and lead the transition out of high global warming potential HFCs.

Firstly, with regard to aerosol propellants, CARB should adopt the phase-out dates for HFCs in all aerosol propellant end-uses covered by the SNAP rule. As far as we know, all users of 134A have already transitioned out of 134A to low-climate solutions in the regulated sectors. But this is an -- on the other hand, it is easy for them to revert back to using the products that they
were previously using, and we think this could have an
impact of one to two million additional tons of CO2
equivalent, if they go back to the old product. We
believe this is an easy low-cost action to implement,
since the transition has already occurred.

Secondly, with regard to mobile air conditioning,
we believe CARB should plan to phase-out 134A for mobile
air conditioning as soon as possible. The SNAP rule
called for a 2021 date, and we think it should be as close
to that as possible.

Thirdly, with regard to foam-blowing agents, we
believe CARB should expand the list of proposed
applications to all of the ones covered by the SNAP 20 and
21 rules. While CARB has indicated that they intend to
address those at a later date, we think it would be better
to do it now. The industry needs certainty in planning
for future phase-outs.

And finally, with regard to stationary
refrigeration, again, we support the proposals, but
suggest they add the additional applications that were
outlined in the short-lived climate pollutant workshops.

Adoption of all of the dates would continue
long -- California's long history of demonstrated
leadership on environmental policy. We expect other
states would view these as simple straightforward
approaches and would follow California's lead.

And based on that, we want to fully support this legislation and thank you for your time.

CHAIR NICHOLS: Thank you.

MS. WALTER-TERRINONI: Good morning. Helen Walter-Terrinoni from the Chemours Company.

And I greatly appreciate the opportunity to speak with you this morning. We are part of the regulated industry, and appreciate the efforts of the program staff for their tremendous analysis and willingness to engage stakeholders in this process.

As has been discussed already this morning, I wanted to kind of talk a little bit about the nature of the approach that the program staff has taken. I think it's a very strong approach. We considered the following as we thought through this. The State needs to be meet its statutory guideline, the 60 percent of the 2013 emissions. In order to do that, they have to take -- they have to use a bunch of different measures. The SNAP Program, if they didn't adopt these SNAP rules, they must shift the burden to other parts of the industry, other parts of the industry that may be less prepared than the sectors that have been chosen in this case.

So, for example, we've talked about flammable refrigerants this morning, right? There are some mildly
refrigerants that are in consideration for use in air conditioning. However, safety standards and codes need to be upgraded in order for them to be used safely. This is a lengthy process. There are a number of studies that have to be completed, and it may take some time for that to be done.

If CARB were to choose not to adopt the SNAP rules, then they would have to shift the burden perhaps in a more -- a more stringent way to these sectors that are not yet prepared for those transitions. So we think that this is a very reasonable approach that the Board is considering.

In addition to that -- in addition to that, there are a number of fluoro chemical users who have invested very heavily in preparation for compliance with the SNAP rules. And they are at risk of a stranded investment, because of the kind of pendulum swinging back and forth around these rules around the country. And so I think that there is significant frustration around that.

I did want to recommend that any new measures and appropriate -- that consideration be made for appropriate modifications to the SNAP rules. So, for example, the example that Kevin Messner made around the Association of Home Appliance Manufacturers. In that case, they're waiting for approvals to -- for the replacement product to
be allowed. They can't make the transition until then.

They're asking for very narrow consideration.

They're not asking for the entire product line to be reconsidered, just the larger units that would require the larger charge size that has not yet been approved at the federal level.

So they've been very narrow in their request for leniency. And I think that that is a reasonable precedent to set, rather than maybe considering large swaths of industry to have differences in the SNAP rules.

CHAIR NICHOLS: Thank you.

MS. WALTER-TERRINONI: Thank you very much for your time.

CHAIR NICHOLS: Any questions?

Okay. Thank you.

MR. SKVARLA: Good morning Chair and members.

Mikhael Skvarla with the Gualco Group here on behalf of the Carrier Corp the parent company to United Technologies.

Kind of Kevin and Helen both kind of made the point. As we go further down the path into the next phase of rules, we do have to remember that the fire standards and the Building Codes need to be considered in this process, which may delay kind of a more aggressive timeline.
In doing so, Carrier has spent hours with staff, and we really appreciate that time, and think that we should probably consider some additional stuff around R3, reuse, recovery, recycle. We have really low rates and we could get a lot of benefit from doing that, and that would help extend the development timeline of the kind of home air-conditioner, and things like that, that may have explosive charges, highly flammable propane. You know, it's fairly charged, or even the CO2 stuff which has much higher pressures than existing systems. We're talking, you know, thousands of PSI, which would require us to train the industry installers and others to these new safety standards.

We need the time. We're working very diligently on moving forward. We've provided staff information or hopefully our lawyers will allow us to provide more over time. We support you guys moving forward and hope we can be a part of this process into the next few years.

Thanks.

CHAIR NICHOLS: Thank you.

Mr. Skvarla was our last witness on this item.

It's a very interesting topic and one that leads to a lot of other interesting questions. But at the moment, we've got a pretty narrow proposal in front of us, which is just designed to keep some existing protections
from going away. It's a foot in the door in a sense for ARB to be entering into this area, but I think it's one that, given our interest in the short-lived climate pollutants is something we're going to have to be becoming much more interested and expert in.

So I would ask for a -- oh, Dr. Balmes.

BOARD MEMBER BALMES: I don't need to make this any longer than it needs to be, but I just want to know, was there anything staff wanted to respond to in terms of the testimony?

DEPUTY EXECUTIVE OFFICER KARPEROS: Thank you, Dr. Balmes. As Chair Nichols said, this -- the proposal in front of you is relatively narrowly tailored to backstop the hole that's been created in the SNAP Program. What we really want to do is turn our attention to the sorts of items that you heard in the testimony. There are lots.

If you recall in our presentation, there was, I think, 45 percent of the reductions from other measures, and we need to turn our attention to those. The sorts of things that the gentleman from Honeywell spoke to are where we want to be looking.

CHAIR NICHOLS: And it is an area where technology is also needed -- advances in technology clearly.
Ms. Berg.

VICE CHAIR BERG: And just following up on that, does staff feel that they do have the flexibility that a couple of our speakers spoke about both in the ability to -- with the enforcement dates, and the home appliances, the refrigerators, for example, in looking at being able to coordinate on the various levels internationally and so forth?

RESEARCH DIVISION CHIEF CROES: This is Bart Croes. So the -- some of the flexibility was regards to sectors we don't yet regulate. So we will certainly factor those issues about codes and standards into our future rulemakings.

In other cases, some of the stakeholders have asked for flexibility in record keeping. So we'll consider that as part of the 15-day changes.

VICE CHAIR BERG: Thank you very much.

CHAIR NICHOLS: Okay. Do we have a motion?

BOARD MEMBER GIOIA: I'll move the item.

VICE CHAIR BERG: And I'll second.

CHAIR NICHOLS: Okay. Thank you.

Any further discussion?

If not, all in favor, please say aye?

(Unanimous aye vote.)

CHAIR NICHOLS: Any opposed?
Abstentions?
Great. Yes.
ATTORNEY DILLEY: Sorry. This is Shannon Dilley. I'd just like to make sure the record gets closed.
CHAIR NICHOLS: Ah. I did not formally close the record. You're right. Getting sloppy here. (Laughter.)
CHAIR NICHOLS: Thank you very much. We should indicate that we did close the record actually before we took the vote. And so it will stay closed. Thank you.
Thanks for the reminder.
We have two people who have signed up for public comment. We have Harvey Eder and we have Mary Humboldt. So let's hear from Mr. Eder first so he can complete his unbroken record of having spoken on every item and in both public comment periods in over two days.
MR. EDER: Correction. It's one and a half day, and I was cut for the 2 -- second and third items yesterday.
It's -- I'm Harvey Eder. I'm speaking for myself and for the Public Solar Power Coalition.
It's -- I want to tell you a little bit more about my history like with solar. I first saw solar in '68 in Israel on the roofs of the apartment house where my
survivor relatives lived -- live. And I was the first registered environmental study student in the UC system in the fall of 1970, and worked on getting a living Christmas Tree in the White House to give to Nixon. And met the first administrator of the Environmental Protection Agency who accepted the tree on behalf of Nixon, William Ruckelshaus. And he asked me if I was with Environmental -- with the Environmental Action Foundation. I told him no. In '74, I worked with him with their utility project with a Rick Morgan, who was head of the Solar Renewable Committee with the regulatory associations around the opportunity.

Anyway, took -- in '74 installed what I think is the first solar system in UC on campus at Santa Cruz at the organic farm, 40 acres, and plumbed that system in March. And in '76 taught the solar section of -- at UC, and was the solar education specialist '77 and '78 for Santa Cruz county. And I met Sylvia Segal that wanted to take PG&E's energy conservation programs and move it into our county, which like started public solar power.

We started the Santa Cruz Alternate Energy Co-op in '74, which is spoof on the AEC. And it was basically educational. Did teach at the community college there. And anyway, worked with a TURN and out of their offices, and was their expert witness on solar. And also
worked at the PUC, especially on low-income solar
financing models, and litigated, STURN did. They were --
had the investor-owned utilities finance, which was
getting into extending what they did to -- and getting
into financial institutions areas.
And there's antitrust inequity issues, and went
to the Supreme Court, and had some success with -- as I
mentioned yesterday.
Anyway, I have worked since '11 like in L.A.
county to try to get a CCA. And a couple days ago was at
their board meeting, and they not only have a CCA in L.A.
County, but they have Ventura County is part of it, and
there's like 40 entities now. A month go there was 30, a
month before that there was 24. And I know -- I guess I'm
out of time, but -- all right.
CHAIR NICHOLS: Thank you.
MR. EDER: You folks ought to be involved in that
as well as the districts and try to get the Governor to
come around what he's doing with the PUC and trying to
harm CCAs is not good, and that's going on right now.
CHAIR NICHOLS: Okay. Mary Humboldt.
MS. HUMBOLDT: Good morning. I'd like to thank
that gentleman for all of his wonderful work.
I'm here. I'm a resident -- a 40 year resident
of the Inland Empire. I came to California in 1962 from
Minnesota to go to Pomona college. And one of the first things I did was get on my bike and ride down to the City of Pomona. I'd never heard the word "smog" before. Going downhill was okay. Coming back, it was just miserable, because it was 4:00 o'clock in the afternoon. And I don't think most of you are old enough to know what smog was like in the sixties, but it was just awful out here.

Over the last 50 years, smog has greatly improved. But here in the Inland Empire, we are still besieged by particulate matter. We have a higher heart attack rate, higher asthma, and higher cancer. This is a great tragedy. Over the last five years, there is a notable increase in the smog in the chemical taste you get in your mouths. This had all but disappeared over the last 10, 20 years. It had gotten better every year. And some must be because of the car improvements and also your good works.

But nevertheless, it's back. I lived in London in the early seventies when smog was becoming a horrific problem over there. I had a member of parliament in my neighborhood say, "Poor people do not deserve clean air". That has stuck with me all these years. "Poor people do not deserve clean air".

The City of Riverside has 330,000 people. The average wage of a family of four of non-public employees
is $40,000 a year. I believe that less fortunate people
deserve cleaner air and cleaner water than the well-to-do.
They can -- the wealthy can afford good medical care, the
poor cannot. When you vote on issues that affect the
Inland Empire, remember the mantra, "Poor people deserve
clean air".

Please, our beautiful farmland is being converted
into jungles of warehouses with polluting trucks
everywhere. It's an atrocity. And I don't know how
anyone in good conscience, but our public officials seem
to be able to vote again and again for these warehouses.

Please do not write us off, and thank you very
much for your good work.

CHAIR NICHOLS: Thank you for coming.

This Board does have a long history with
Riverside. And it's good to be back here again, and to
know that we're going to be spending more time as a result
of our laboratory that we're building adjacent to the UC
campus here in the Inland Empire.

But you're right, that there's a history of
Riverside having been impacted by smog that was blown in
from other places, and a strong effort to fight back on
behalf of the people who lived out here. It's a --
there's a lot of interesting history there. And some of
it is being published, in fact, right now, because it is
the 50th anniversary for the California Air Resources Board. So I think you'll find some of that reminds you of some things in your own history and you may learn some as well.

If there's no other business to come before the Board, I think we could be adjourned. So let's do that.

We will -- let's just before we -- before we break up, let's just take another moment to reflect on the important work and life of a woman who passed away. This was the Chief of Staff for Governor Brown, even though that wasn't her title. Executive Secretary was what she was called, but she functioned in all respects as the person who made things work in California State government, and who just dedicated her whole life to trying to work in the political sphere in a way that would be impactful for people's lives, and a great human being as well.

So we'll say just a moment -- take a moment and then adjourn in memory of Nancy McFadden.

(Moment of silence for Nancy McFadden.)

CHAIR NICHOLS: Thank you.

(Thereupon the Air Resources Board meeting adjourned at 10:29 a.m.)
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 April, 2018.

JAMES F. PETERS, CSR
Certified Shorthand Reporter
License No. 10063