MEETING

STATE OF CALIFORNIA

AIR RESOURCES BOARD

AIR RESOURCES BOARD

2020 L STREET

BOARD ROOM

SACRAMENTO, CALIFORNIA

THURSDAY, DECEMBER 7, 2000

9:00 A.M.

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

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES

BOARD MEMBERS

Dr. Allan Lloyd, Chairperson

Mrs. Barbara Riordan

Dr. William Burke

Mr. Joseph Calhoun

Supervisor DeSaulnier

Ms. Dorene D'Adamo

Professor Hugh Friedman

Dr. Friedman

Mr. Matthew McKinnon

Supervisor Mark Roberts

STAFF

Mr. Mike Kenny, Executive Officer
Mr. Tom Cackette, Deputy Executive Officer
Mr. Mike Scheible, Deputy Executive Officer
Ms. Lynn Shenk, Deputy Executive Officer
Mr. Steve Albu, Chief, Engineering Studies Branch, Mobile Source Control Division
Ms. Analisa Bevan, Manager, ZEV Implementation Section, Mobile Source Control Division
Ms. Sarah Carter, Air Resources Engineer, Mobile Source Control Division
Mr. Bart Croes, Chief Research Division
Mr. Bob Cross, Chief, Mobile Source Control Division

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

APPEARANCES CONTINUED

STAFF CONTINUED

Ms. Vicky Davis, Staff Counsel

Dr. Deborah Dreschler, Air Pollution Specialist, Research Division

Mr. Paul Hughes, Chief, Engineering Studies Branch, Mobile Source Control Division

Ms. Roberta Hughan, Air Pollution Specialist, Mobile Source Control Division

Mr. Tom Jennings, Senior Staff Counsel

Ms. Diane Johnston, Senior Staff Counsel

Ms. Renee Kemena, Manager, Planning and Regulatory Development Section, Mobile Source Control Division

Mr. Jack Kitowski, Chief, On-Road Controls Branch, Mobile Source Control Division

Ms. Leslie Krinsk, Senior Staff Counsel

Ms. Gayle Sweigert, Air Pollution Specialist, Mobile Source Control Division

Ms. Judy Yee, Air Pollution Specialist, Mobile Source Control Division

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

iv

INDEX

PAGE

Opening remarks by Chairperson Lloyd	1
Pledge of Allegiance	1
Roll Call	1
Presentation to Mr. Ray Menebroker	3
Item 00-12-1	10

	Chairperson Lloyd	10
	Executive Director Kenny	12
	Presentation by Air Pollution Specialist Dreschler	13
	Presentation by Dr. Lipsett	19
	Presentation by Air Quality Advisory Committee Chairperson Klansman	25
	Discussion	28
Publi	ic Testimony	
	Mr. Brian Lamb	40
	Vote	45
Item	00-11-2	46
	Chairperson Lloyd	46
	Executive Director Kenny	48
	Presentation by Air Pollution Specialist Yee	50
	Discussion	63
Publi	ic Testimony	
	Dr. Chung Liu	78
PETEI	RS SHORTHAND REPORTING CORPORATION (916) 362-2345	
		v
	INDEX CONTINUED	
		PAGE
	Mr. David Modisette Mr. Tom Addison	82 94
	Vote	96
Item	00-12-3	
	Chairperson Lloyd	97
	Executive Director Kenny	98

Air Resour	ces Engineer	Carter	100
------------	--------------	--------	-----

Ombudsman Tschogul 108

Discussion

Vote

Item 00-12-2

109

110

111

- Chairperson Lloyd111Executive Director Kenny112
- Air Pollution Specialist Hughan 114 Discussion 132

Public Testimony

Mr. Dr. Ms. Mr. Mr. Mr. Mr. Mr. Mr. Mr.	Kevin Hallstrom Henry Hippert Jeff Redoutey Thomas Trueblood Warren Slidolsky	149 153 160 164 166 166 170 176 181 182 186 195
	Warren Slidolsky Lelon Forlines	195 196
Mr.	Greg Vlasek	197

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

vi

INDEX CONTIUNED

PAGE

Public Testimony Continued

Mr. Chris Brown	200
Mr. Paul DeLong	206
Mr. Michael Applegate	213
Ms. Nina Young	216
Mr. Peter Whittingham	222
Mr. Ted Holcombe	235
Mr. Mike Murray	238
Mr. Jim O'Connell	244
Mr. Dave Smith	250
Mr. Ed Manning	253

Ms.	Stephanie Williams	257
Ms.	Pam Jones	261
Mr.	Scott MacDonald	264
Mr.	V. John White	267
Ms.	Bonnie Holmes-Gen	286
Ms.	Sandra Spelliscy	291
Ms.	Gail Ruderman Feuer	294
Ms.	Julia Levin	303
Ms.	Marta Arguello	309
Mr.	Jesus Santos-Guzman	311
Ms.	Tiffany Schauer	313
Mr.	Stephen Rhoads	316
Mr.	Brett McFadden	321
Mr.	Dave Randall	328
Mr.	Doug Snyder	337
Mr.	Kirk Hunter	341
Mr.	Steven Stetson	343
Mr.	Ranson Roser	346
Mr.	Victor Ogrey	349
Mr.	Michael Hulsizer	351
Ms.	Veronica Dale Muchmore	369
Mr.	Mark Fairbanks	374
Mr.	David Walrath	376
Ms.	Claudia Sherrill	379
Vot		110
Vote	2	418
Adjournment 4		418
Reporter's Certificate 41		419

1 1 PROCEEDINGS CHAIRPERSON LLOYD: Would everyone take their 2 3 seats, please. Good morning, the December 7th, 2000 public 4 meeting of the Air Resources Board will now come to order. 5 6 Ms. D'Adamo, would you please lead us in the 7 Pledge of Allegiance. (Thereupon Ms. D'Adamo lead the Pledge of 8 Allegiance which was recited in unison.) 9 CHAIRPERSON LLOYD: Thank you very much. 10

11 Will the clerk of the Board, please call the

12	roll.	
13		SECRETARY KAVAN: Dr. Burke?
14		BOARD MEMBER BURKE: Present.
15		SECRETARY KAVAN: Calhoun?
16		BOARD MEMBER CALHOUN: Here.
17		SECRETARY KAVAN: D'Adamo?
18		BOARD MEMBER D'ADAMO: Here.
19		SECRETARY KAVAN: Supervisor DeSaulnier?
20		BOARD MEMBER DeSAULNIER: Here.
21		SECRETARY KAVAN: Professor Friedman?
22		BOARD MEMBER HUGH FRIEDMAN: Here.
23		SECRETARY KAVAN: Dr. Friedman?
24		BOARD MEMBER WILLIAM FRIEDMAN: Here.

25 SECRETARY KAVAN: McKinnon?

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

1	BOARD MEMBER McKINNON: Here.
2	SECRETARY KAVAN: Supervisor Patrick?
3	Riordan?
4	BOARD MEMBER RIORDAN: Here.
5	SECRETARY KAVAN: Supervisor Roberts?
6	Chairman Lloyd?
7	CHAIRPERSON LLOYD: Here.
8	Thank you. Just a note here on today's meeting.
9	Since the last meeting in the building, I have asked staff
10	to video tape it or at least parts of it for posterity.

11 On January 25th, at our next meeting, we will be 12 meeting at the Sacramento Municipal Utility District for 13 our hearing on the Zero Emission Vehicle Program.

And then in March we will be on the road. And then in April we've got our new facility at the Cal EPA building on 10th and I, so that's why you see the lights on today here.

18 So at this point, I would take great pleasure to 19 have a special ceremony here. And that I would like to 20 announce and invite Ray Menebroker to come up to the 21 Board.

22 While Ray is getting here, I think it's my 23 pleasure to take the opportunity to honor one of the Air 24 Resources Board's most valuable Branch Chiefs as he 25 retires.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

3

1 Ray Menebroker, Ray to us, has been on the Board 2 for almost as long as it has existed. Ray's career began 3 on July 31st, 1970 and comes to a close next week on 4 December 15th, 2000. He has devoted over 30 years of his 5 life to the pursuit of clean air.

6 Good morning, Ray.

7 PROJECT REVIEW BRANCH CHIEF MENEBROKER: Good 8 morning.

9 CHAIRPERSON LLOYD: In the early days, Ray10 learned the ropes of air pollution control doing field

11 work and investigation in the Enforcement Division. He 12 then moved quickly into the management position in 1974 13 responsible for the Subvention Unit, where he administered 14 grant programs in excess of \$1 million.

15 By 1976 he moved to Control Strategy Development 16 on such sources as coke ovens, glass furnaces, stationary 17 internal combustion engines, architectural COLINKS. In the eighties, Ray began working in fuels and energy and 18 19 even spent a short time at the Energy Commission. Ironically, the questions of fuel supply and prices, 20 siting new power plants and securing the best available 21 control technologies would follow Ray for the rest of his 22 career, and are as important today as they were when he 23 started. 24

25 He was promoted to Branch Chief in 1984 to manage

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

4

the Project Review Branch and has been actively involved 1 with the new source siting ever since. Ray is recognized 2 as a national and state leader in the implementation of 3 Title 5, Permits Program. He has participated nationally 4 in the effort to reform new source review requirements and 5 streamlined Title 5 permitting requirements. He manages 6 the Portable Equipment Registration Program and has 7 8 recently been active in the Board's diesel risk reduction 9 efforts.

10

Ray has extensive experience working with local

districts, industry, environmental groups and various stakeholders. He is widely known as a man of integrity and technical expertise. When you want a straight answer, Ray gives it to you and I can personally attest to that, by the way. And that's one of the joys during the brief time I've been here working with Ray, he's been an incredible resource.

18 When an agency has a person who is important and 19 as well respected as Ray, there is need to give him 20 special recognition and appreciation. On behalf of my 21 fellow board members and myself, I am pleased to present 22 Ray with a board resolution and personal thanks for a very 23 long hard job well done.

24 Ray, you can look back over your career at the 25 Air Resources Board knowing that the years you have given

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

5

1 to the achievement of clean air for the citizens of California were well spent. We wish you well in your 2 retirement. However, I think you should rename that, it's 3 not really retirement. As Dr. Morgan reminded us several 4 board meetings ago, retirement has killed many good men. 5 So we wish you a good transition to future activities in 6 the future and we recognize, and I hope that your 7 8 expertise will not be lost for the citizens of California 9 or the rest of the world, because the investment that you 10 have made, the expertise that you have, we hope that you

11 will continue to share that.

12 At this point, I would like Executive Officer 13 Mike Kenny to read the resolution and present you with a 14 plaque. 15 EXECUTIVE DIRECTOR KENNY: The is the resolution 16 that has been prepared. CHAIRPERSON LLOYD: Mike, just before --17 18 hopefully we've got a photograph somebody will be taking 19 of this board resolution. EXECUTIVE DIRECTOR KENNY: Board Resolution and 20 21 it's dated today. 22 "Whereas Sections 39600 and 39601 of the 23 Health and Safety Code authorized the 24 Air Resources Board to adopt standards, 25 rules and regulations and to do such

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

6

acts as may be necessary for the proper 1 execution of the powers and duties 2 3 granted to and imposed upon the Board by 4 law, 5 "Whereas Mr. Raymond Menebroker, has officially announced his desire to 6 7 retire from public service after a long and productive career with the State of 8 9 California, "Whereas Ray began his career with the 10

11	Department of Water Resources in 1967
12	after graduating from Cal State
13	University at Sacramento with a degree
14	in Mechanical Engineering,
15	"Whereas Ray wisely moved to the Board
16	in 1970 and even more wisely married his
17	wife Vickie in 1971,
18	"Whereas Ray has dedicated his efforts
19	and talents without reservation to the
20	Board since that date with the exception
21	of a brief sabbatical with the
22	California Energy Commission in the
23	early 1980s,
24	"Whereas Ray's substantial career
25	accomplishments include landmark water

1 engineering work on the AV Edmondson water pumping plant near the Grapevine, 2 and precedent setting work on State and 3 local air district rules and regulations 4 that have had a significant impact on 5 California's environment, 6 7 "Whereas Ray has established himself as a nationwide clean air policy expert on 8 both the New Source Review Program and 9 Title 5 operating permit program 10

11	resulting in the implementation of rules
12	in California that have served as a
13	model for the nation and has
14	substantially improved new air pollution
15	control technology,
16	"Whereas Ray has brought enough rocks to
17	the United States Environmental
18	Protection Agency to build a national
19	monument to air pollution control while
20	still maintaining his common sense and
21	productive cynicism,
22	"Whereas Ray has complemented his
23	technical competence with a great sense
24	of humanity, kindness and ethical
25	behavior that has endeared him to his

friends and colleagues in California and 1 throughout the nationwide air pollution 2 control community, 3 "Whereas a public retirement dinner 4 meeting will be held on January 12th, 5 2001 in accordance with the provisions 6 7 of Chapter 3.5 commencing with Sections 11340 part 1, Division 3, Title 2 of the 8 Government Code to honor Ray on his 9 10 accomplishments and to allow his

11	co-workers, friends and family to wish
12	him well in his retirement,
13	"Whereas the Board finds that even
14	though we would like to keep him around
15	for another 30 productive years, Raymond
16	E. Menebroker meets all the requirements
17	for retirement from the Board,
18	Now, therefore be it resolved, that the
19	Board extends a heartfelt thank you to
20	Ray for his superior quality work over
21	the years and a fond farewell with the
22	sincere wish that Ray enjoy a long
23	retirement with his wife Vickie,
24	daughters Heidi and Cari and son-in-law
25	Matt.

1	"Executed in Sacramento, California on
2	the 7th day of December 2000."
3	Ray, congratulations.
4	(Standing applause.)
5	BOARD MEMBER HUGH FRIEDMAN: Stay for a picture.
6	PROJECT REVIEW BRANCH CHIEF MENEBROKER: Thank
7	you for the kind words. I want to thank the Board. I've
8	worked for every board chair and every executive officer
9	that's been with the Air Resources Board. And it's been a
10	good career and I wouldn't trade it for anything. I think

11 that it's a good organization and it's just been a 12 pleasure.

I remember meeting Mr. Calhoun in 1970, I think wasn't it, Joe, when he was here with the Board. And there's a lot of people around here that I owe a debt of gratitude to. And I just want to thank everybody, because it has been a pleasure.

But the one thing that I got out of the Board was my wife Vickie. She and I worked here in 1970 together and that's where I met her. So good things come, too. (Applause.) CHAIRPERSON LLOYD: Thank you very much, Mike and Ray.

Just to link to what I mentioned earlier about our next board meeting to alert you that the staff report

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

10

on ZEV's will be out some time tomorrow. So those of you
 who are waiting for that will have it. The Board Members
 also will get a synopsis of that report and should have it
 today or tomorrow.

5 I think with respect to the schedule, I'll just 6 mention some slight changes we've made here. Hopefully 7 that information has got out to many of you. The game 8 plan is to complete the first four items on our agenda 9 today, holding the research proposals and the not to 10 exceed standards until tomorrow morning at 8:30 a.m., 11 starting tomorrow at 8:30.

12 So if you're here for either of the two items I 13 just mentioned, you may wish to come back then or stay for 14 today's discussions.

15 We're going to start with SB 25, Standards Review 16 today, followed by the Electric Vehicle Incentive Program 17 and then the meeting to do LEV alignment.

18 That should take us to lunch time, plus or minus. 19 We will intend to take a luncheon break and then we'll 20 start the Lower Emission School Bus Program after the 21 lunch break and continue that through the rest of the day 22 into the evening as long as it takes, so we will bring 23 that item to a close here today.

24 So hopefully that will give you a sense of where 25 we're headed and fit into your schedules as well. Also,

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

11

depending on the list of witnesses that we have signed up,
 I may be limiting the time allotted for witnesses to
 testify.

I think with that, I'd like to turn over to the first agenda item. Just a reminder that anyone in the audience who wishes to testify on today's agenda items to sign up with the Clerk of the Board. If you have a written statement, please provide 30 copies to the Clerk, if possible.

The first item on the agenda and item number

11 00-12-1 is a review of the Health-based California Ambient 12 Air Quality Standards.

The children's Environmental Health Protection 13 Act, by Senator Martha Escutia of Montebello requires 14 15 several actions by the board. 16 First, we are to go back over our existing 17 standards and regulations to make sure they took children's unique vulnerabilities into account and make 18 19 any necessary adjustments on that score. 20 Second, we are to gather new data on children's 21 exposure so that looking ahead we can make the right 22 regulatory and policy decision to protect their health. 23 The Air Resources Board is not the only agency 24 affected by this law. The Office of Environmental Health

25 Hazard Assessment has a substantial role in helping us

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

12

re-examine all medical data to see if our criteria or
 toxic air contaminant standards missed anything vis-a-vis
 children's health.

In addition, the Act directs CalEPA to establish
a Children's Environmental Health Center. So, in fact,
we're delighted to work with our sister here from OEHHA
and delighted to see representatives here today.

8 Finally, the South Coast Air Quality Management 9 District is required to directly notify schools of 10 unhealthful air pollution levels, a program they've been 11 successfully operating for some time now under Chairman 12 Burke's leadership. South Coast also has a ten-point 13 Children's Health Protection program, again created by 14 Chairman Burke.

Today, we will be taking the first formal action, board action, to fulfill one of the requirements of the new law.

18 Mr. Kenny, will you please introduce the item and 19 begin staff presentation.

20 EXECUTIVE DIRECTOR KENNY: Yes. Thank you, Dr. 21 Lloyd and Members of the Board. As you stated, the 22 Board's first action under the Children's Environmental 23 Health Protection Act is the approval and joint ARB-OEHHA 24 report reviewing the current health-based California 25 ambient air quality standards.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

13

1 The purpose of this report is to determine 2 whether in consideration of public health, scientific 3 literature and exposure, the standards adequately protect 4 public health, including infants and children. The report 5 includes literature reviews, recognized experts on each 6 pollutant with emphasis on health effects in infants and 7 children, as well as information on California's air 8 quality.

9 The report also contains OEHHA's determination as 10 to which standards are inadequate and recommendations for

11 priority review of these standards. The report and 12 recommendations were reviewed by OEHHA's air quality 13 advisory committee. Dr. Deborah Dreschler from ARB and 14 Dr. Lipsett from OEHHA will now present the joint report. 15 Dr. Michael Klansman, Chairman of the Air Quality 16 Advisory Committee will present an overview of the Air 17 Quality Advisory Committee's review and its recommendations for priority review of standards 18 19 considered inadequate to protect public health. AIR POLLUTION SPECIALIST DRESCHLER: Thank you, 20 21 Mr. Kenny. Good morning, Dr. Lloyd and Members of the 22 Board. 23 (Thereupon an overhead presentation was 24 presented as follows.)

25

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

AIR POLLUTION SPECIALIST DRESCHLER: My

14

presentation will include an overview of the Children's Environmental Health Protection Act and a description of the process staff, from the Office of Environmental Health Hazard Assessment, OEHHA, and the ARB used to prepare the joint staff report and recommendations before you this morning. AIR POLLUTION SPECIALIST DRESCHLER: This will be

9 a three-part presentation. First, I will present an 10 introduction to the Children's Environmental Health Protection Act and its requirements along with an overview of the ambient air quality standards review process as it relates to the Act.

14 Second, Dr. Lipsett of OEHHA will summarize the 15 results of the scientific review process. And third, Dr. 16 Mike Kleinman, Chair of the Air Quality Advisory 17 Committee, will present an overview of the committee's 18 review of the staff report along with the committee's 19 recommendations for the priority order for review of the 20 standards.

AIR POLLUTION SPECIALIST DRESCHLER: The
Children's Environmental Health Protection Act was
introduced into the Legislature by State Senator Martha
Escutia as Senate Bill 25 and was signed by Governor Davis

--000--

15

21

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

1 in late 1999. The Act includes a number of new 2 requirements to ensure that ambient air quality standards 3 and toxic air contaminant regulations are adequately 4 protective of susceptible groups in California. 5 Among potentially susceptible groups, the Act has a special focus on protection of infants and children. 6 7 --000--AIR POLLUTION SPECIALIST DRESCHLER: The Act has 8 9 several requirements. The ARB in consultation with the 10 OEHHA is required to review all health-based ambient air

11 quality standards and to determine whether the standards 12 are adequately protective of infants and children.

13 The bill requires the ARB and OEHHA to review the 14 list of toxic air contaminants, and, if necessary, revise 15 control measures for toxic air contaminants to reduce 16 exposure to toxic compounds. The ARB must also evaluate 17 the adequacy of the current air monitoring network with 18 regard to whether it provides adequate estimates of 19 children's air pollutant exposure.

20 Six new air quality monitoring sites will be 21 operated in areas that are currently out of attainment of 22 State ambient air quality standards.

AIR POLLUTION SPECIALIST DRESCHLER: Twoadditional requirements of the Act included for the South

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

16

Coast Air Quality Management District is to notify schools, and where feasible, day care centers when air quality standards are exceeded. The Act establishes the Children's Environmental Health Center within the California Environmental Protection Agency. The center is to serve as the chief advisor to the Secretary of the California Environmental Protection Agency and the Governor on issues of environmental health protection of children.

10

--000--

AIR POLLUTION SPECIALIST DRESCHLER: The first action required by the Act is that ARB, in consultation with OEHHA, review the health-based ambient air quality standards with emphasis on the adequacy of protection of infants and children. Standards that are considered inadequately protective of public health must be prioritized for complete review and possible revision. Both of these activities are to be completed by December 31st, 2000.

AIR POLLUTION SPECIALIST DRESCHLER: The ambient air quality standards reviewed were those for PM 10, or Particulate Matter, ten microns or less in aerodynamic diameter, sulfates, ozone, nitrogen dioxide.

--000--

25 --000--

20

3

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

17

AIR POLLUTION SPECIALIST DRESCHLER: Lead, carbon
 monoxide, hydrogen sulfide and sulfur dioxide.

--000--

4 AIR POLLUTION SPECIALIST DRESCHLER: The initial 5 step in the ambient air quality standards review process 6 involved preparation of scientific literature reviews by 7 recognized health experts. Each health expert provided a 8 written report to OEHHA and the ARB evaluating the health 9 protectiveness of one or more of the State ambient air 10 quality standards. 11 These were not exhaustive reviews. Rather, they 12 focused on whether there was evidence suggesting adverse 13 health effects, particularly in infants and children with 14 exposure to pollutant concentrations at or near the 15 current standards.

16 The ARB and OEHHA then integrated the information 17 on pollutant exposure and from the literature reviews into a draft report which was available for public comment and 18 19 was also presented to public workshops. Following the public comment period, the report was reviewed by the air 20 quality advisory committee, OEHHA's outside advisory 21 22 review panel, which is comprised of world recognized health experts on health effects of air pollution 23 24 exposure.

25

The air quality advisory committee reviewed and

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

18

1 discussed the draft staff report at a public meeting and 2 made recommendations as to which standards appeared to be 3 inadequate. The Committee then made recommendations as to 4 the priority order for review of the standards considered 5 possibly inadequate.

6 After the air quality advisory committee meeting, 7 the draft report was revised to incorporate the comments 8 of the Committee and the public. It was, again, made 9 available for public comment and is today presented to the 10 Board for approval. --000--

12 AIR POLLUTION SPECIALIST DRESCHLER: The Act 13 requires that the Board publish a report summarizing the 14 review of the adequacy of the State ambient air quality 15 standards and that standards considered possibly 16 inadequate be prioritized for further review no later than 17 December 31st, 2000.

18 Today, you, the Board, will consider for approval 19 and publication the staff report.

20 And the Act requires that the highest priority 21 standard be extensively reviewed, and, if necessary, 22 revised by December 2002. The report conveys the 23 recommendation of the staffs of the ARB and OEHHA as well 24 as the air quality advisory committee that particulate 25 matter including sulfates should be the first standards

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

19

1 reviewed.

And the Act further requires that any additional standards which are deemed not sufficiently protective undergo extensive review, and, if necessary, revision at the rate of one per year starting in 2003. And the staff report will also be valuable guiding research planning over the next several years so that our research efforts support the standards review process.

9 I would now like to introduce Dr. Michael Lipsett 10 from OEHHA who will present the pollutant reviews.

--000--11 12 DR. LIPSETT: Good morning, Chairman Lloyd and 13 Members of the Board. I'm pleased to be here to present our recommendations to you regarding SB 25. 14 15 Next slide, please. 16 --000--17 DR. LIPSETT: And as Dr. Dreschler mentioned, our 18 role in the process initially has been to review all of 19 California's health-based ambient air quality standards, and during the process to determine whether the standards 20 21 adequately protect public health, with an adequate margin 22 of safety. The bill, as mentioned, focuses particularly 23 on infants and children, however, not to the exclusion of 24 other potentially susceptible subgroups. 25 Next slide, please. PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 20 --000--1 DR. LIPSETT: This is the list that Dr. Dreschler 2 3 has already presented to you, so I won't dwell on this one 4 here. 5 Next slide, please. 6 --000--7 DR. LIPSETT: Now, the guidelines that we used to evaluate each of the standards included five principals 8 9 really. We looked at the extent of the evidence of health 10 effects reported to occur at or near the level of the

11 existing standard. We tried to assess from the literature the nature and the severity of these health effects. 12 13 Next slide, please. --000--14 15 DR. LIPSETT: The magnitude of the risk expected 16 for each one of the particular health effects identified. 17 And that magnitude of risk consists of looking at the kind 18 of the baseline level of the particular health effects and 19 also the potential increase in risk that might be related 20 to exposure to the particular pollutant. 21 We looked for evidence specifically indicating 22 that children might be more susceptible than adults to 23 exposures to a given pollutant. And then, finally, we 24 tried to assess the degree of exposure in the State 25 relative to the level of the standard. PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

21

Next slide, please. 1 --000--2 DR. LIPSETT: As Dr. Dreschler had mentioned, we 3 contracted with recognized world experts who undertook the 4 initial critical reviews of the existing literature. And 5 their reviews are part of this report as one of the 6 7 appendices. Then based on these reviews, we drafted summary 8 9 statements and recommendations for each one of the

10 pollutants, and these were circulated for public comment

11 and review by our Air Quality Advisory Committee.

12 Next slide, please. 13 --000--14 DR. LIPSETT: The bottom line of our evaluation 15 was that the health effects may occur in infants, children 16 and other potentially susceptible subgroups exposed to 17 some of the pollutants at or near levels corresponding to their ambient air quality standards. 18 19 Now, of these eight pollutants or pollutant 20 classes, we divided them into two tiers. 21 Next slide, please. --000--22 DR. LIPSETT: The Tier 1 standards included those 23 24 for which evidence indicated their potential risk to 25 public health at or near the current level of the PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 22

standard, and they included PM 10. And within that, even though there was a separate sulfate standard, we thought that in looking at the PM 10 standard, we ought to also include sulfates because they really are a subclass of PM 10; ozone and nitrogen dioxide. Next slide, please.

7 --o0o-8 DR. LIPSETT: Then for Tier 2, we found either
9 that the scientific evidence was less certain about the
10 potential risks to public health or that public health

11 protection is already provided through other regulations.

12 And this latter criterion applies specifically to lead.

13 Next slide, please.

14

--000--

DR. LIPSETT: Now we received a number of public comments which I'm going to be summarizing in the following slide.

First, was that the PM standard in California should be reviewed, but during the process of review, we need to focus on which components of PM 10 are likely to be causally related to the effects observed.

22 One of the other extensive comments related to 23 making sure that we evaluate the potential effects of 24 indoor sources of particulate matter and also that the 25 commenters, two commenters, indicated that they felt that

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

23

1 the allocation of nitrogen dioxide into the first tier was in their opinion inappropriate because they felt that for 2 the most part that throughout California their nitrogen 3 4 dioxide standard has been met. 5 Next slide, please. 6 --000--7 DR. LIPSETT: And then were a series of comments 8 related to ozone. And these commenters felt that ozone 9 should be a priority for review, because the background 10 concentrations within California had not been adequately

11 considered, the time indoors should be considered in 12 assessing exposure, and that is that because people spend 13 so much time indoors and that ozone is pretty active, that 14 exposures are likely to be lowered than what's indicated 15 by the ambient monitors.

16 The third comment was that the US EPA in its 1997 17 revision of the ozone standard had undertaken a risk 18 assessment suggesting that there, at least in the 19 commenter's opinion, that little public health impact 20 would be -- would result from further reductions in either 21 the federal or the California standard.

And finally, the commenter felt that transient hung function changes, which are observed consistently at low levels of ozone exposure, but they felt that these might not be considered to be adverse health effects.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

24

Next slide, please. 1 --000--2 DR. LIPSETT: Well, our Air Quality Advisory 3 Committee did review the summary reports that we produced 4 and the overall expert reports as well. And the 5 commenters also appeared -- the commenters responsible for 6 those, the last two slides, appeared and made 7 8 presentations as well at the Air Quality Advisory 9 Committee. 10 And the Committee ultimately concurred with our

11 designation of pollutant designations into Tier 1 and Tier
12 2. The Committee members felt, however, that within Tier
13 2 the carbon monoxide should be the top priority. And
14 then, finally, they made a number of relatively minor
15 technical suggestions for improvement of our document
16 which had been incorporated.

17

Next slide, please.

18 ---000---

DR. LIPSETT: Now, I'm going to be concluding with the slide that shows our recommendation was that the PM 10 ought to be the first and the highest priority pollutant to be reviewed in the process. The last review that took place for the particulate standard was in 1982 and 1983. And since that time, there have been many, many studies published linking particulate matter exposure in

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

25

cities throughout the world to increased daily mortality,
 to chronic mortality, hospital admissions, emergency room
 visits, lung function changes and other adverse health
 effects.

5 There are also documented effects in children and 6 infants in the country and in a number of other countries 7 that had been reported. And finally, most Californians 8 are intermittently exposed to levels of PM currently that 9 exceed the standard in California.

10

And with that, I'd like to conclude my

11 presentation and turn it over to Dr. Michael Klansman, the chair of our Air Quality Advisory Committee. 12 13 --000--AIR QUALITY ADVISORY COMMITTEE CHAIRPERSON 14 15 KLEINMAN: Thank you, Commissioner Lloyd and Board 16 Members. The Air Quality Advisory Committee met on 17 December 7th -- I'm sorry, on December 7th was not the 18 date -- on October 12th, to review the staff draft 19 document on, review and adequacy of the California Air 20 Quality standards. Can I have the next slide, please. 21 --000--22 AIR QUALITY ADVISORY COMMITTEE CHAIRPERSON 23 KLEINMAN: We reviewed the Commission critical reviews on 24 the recent health effects literature which specifically 25 focused on the health effects of air contaminants on PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 26 1 children. And I'm just presenting here the names of the individuals who actually authored the reviews. 2 These have been summarized and used as the basis 3 4 for the staff document prepared by Dr. Ostro and Dr. Lipsett and their staff. And, in general, the Committee 5 found that these reports were very well assembled. They 6 7 served the purpose to which they were defined. 8 May I have the next slide, please. 9 --000--10 AIR QUALITY ADVISORY COMMITTEE CHAIRPERSON

11 KLEINMAN: They were comprehensive and they responded to 12 the needs of the Air Resources Board and OEHHA. There 13 were concerns raised during the course of our discussions 14 over the rather narrow and sometimes nonexistent margins 15 of safety between the existing standards and levels at 16 which health effects are seen.

17 There were also some suggestions that improved monitoring and data handling capabilities could now allow 18 19 the reviewers of the health data to provide new data to allow us to look at better identifications of averaging 20 21 times that might be important with respect to responses on 22 the health basis to air pollutants and also to perhaps in the future define better pollutant metrics. 23

24 Next slide, please.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

--000--

27

AIR QUALITY ADVISORY COMMITTEE CHAIRPERSON 1 KLEINMAN: We agreed with the designation of the proposed 2 tiers for review, and in terms of priorities, that 3 4 particulate matter should be given the highest priority, followed by ozone and then by nitrogen dioxide. 5 6 In Tier 2 there was less consensus in terms of the staging of the four, sulfur dioxide, carbon monoxide, 7 8 hydrogen sulfide and lead. 9

Can I have the next slide.

--000--

10

11 AIR QUALITY ADVISORY COMMITTEE CHAIRPERSON KLEINMAN: In Tier 2 various concerns were raised for each 12 13 of the pollutants. For example, I've just selected out a few that hydrogen sulfide, for example, that the adequacy 14 15 of monitoring association of levels of complaints with 16 levels of exposure have been documented, but not very 17 well, and that there are new data available from several of the air quality management districts that might help 18 19 provide new light on health effects from hydrogen sulfide. With sulfur dioxide there does seem to be some 20 21 new data in the literature that indicate that the margin 22 of safety has been somewhat eroded by the most current data. And with carbon monoxide, there are very few real 23 24 studies done with children. And although there are

25 several that imply and suggest important health effects,

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

28

1 the data has not currently been very compelling, but they raise the level of concern sufficient that carbon monoxide 2 should be given the highest priority in Tier 2. 3 4 --000--5 AIR QUALITY ADVISORY COMMITTEE CHAIRPERSON KLEINMAN: And I believe that summarizes the overall 6 comments that we received. 7 8 In general, our committee recommends this report 9 to the Board for it's approval.

10 CHAIRPERSON LLOYD: Mr. Kenny, do you have any

11 final comments?

12 EXECUTIVE DIRECTOR KENNY: Nothing further. 13 CHAIRPERSON LLOYD: Thank you very much. I would 14 also like to express my appreciation to Dr. Klansman, good 15 to see you here, Mike, for your work and for summarizing 16 the Committee's recommendations. I'd also like to say how 17 fortunate we are to have the caliber of the people we have to review these standards across the Board. So I think 18 19 it's a particular pleasure for me to see that and gives me a lot of confidence that what we're going to come out with 20 is, in fact, going to be a first rate report, starting out 21 22 with the particulates. And I quess before I turnover it over to the Board -- yes, Dr. Friedman. 23

BOARD MEMBER WILLIAM FRIEDMAN: Well, I alsoreally do appreciate not only the amount of work that went

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

29

into this but the quality of the work that went into it.
 And I think that the report is fully compliant with the
 requirement of SB 25.

I want to make a number of comments and I don't want to get too discursive. But as someone who's devoted most of his life to studying developmental phenomenon, I really appreciate the difficulties in creating a developmental framework to analyze age-dependent susceptibilities to anything, let alone pollutants. It's not dissimilar to the issues of how do you do drug doses 11 for children and infants compared to adults and all the 12 rest of it. It's not just simply by size or surface area 13 or age or whatever. It's very difficult.

And what makes it extremely difficult are that 14 15 animal studies don't really apply very well, because rates 16 of maturation in all the species we use are very, very 17 different from the human species. And as I read through all these reports, and they're very, very good, I sort of 18 19 have to toss out the comparisons between adolescents and adults. That's really not what this is focused on. This 20 is an infants/children kind of an issue and the data is 21 22 very soft, because it has to be soft since we don't expose infants and children as guinea-pigs specifically to test a 23 hypothesis. And it makes it very difficult. 24

25 I found myself wishing that there was a bit of an

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

30

1 introduction to the wonderful reports that all of our 2 friends wrote that just stated and recognized the problems 3 with age-dependent analyses of any kind. That's sort of 4 not a preamble to all of this and it would educate not 5 only the people in the Legislature who are interested in 6 this, but all subsequent analyses as we continue to do 7 research and develop prospective data.

8 So I had hoped that a couple of pages would just 9 recognize the generic issue of how difficult age-dependent 10 studies are, and could be included at some future time. 11 That was point number one.

12 Point number two, and I was really glad to see 13 Dr. Lipsett including some of the so-called criticisms of 14 some of the folks that responded and, frankly, the criticisms, to some degree, were specious in my opinion, 15 16 especially with respect to the business about ozone and 17 oh, physiological effects are transient and they don't really matter because they're physiological. Well, 18 19 anybody who takes care of people understands that physiological adaptation is repetitive, overcompensates 20 21 and creates disease. 22 So in the written comments that you got, in

23 particular about ozone and we shouldn't worry about it 24 because some of these effects on kids are transient, 25 misses the point entirely. That transient does not mean

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

31

safe. And I appreciated your having that included in your
 slide.

I had one comment. I thought the reports were very well done and clearly they can't be completely comprehensive. And because different folks prepare different portions of the report, I thought there was a little bit of unevenness in the emphasis on the relationship between oxides of nitrogen and some of the findings most recently in the Children's Health Study with respect to lung development. For example, in Mark 11 Frampton's report, which does reference the early findings 12 of the John Peters group, it just references nitrogen 13 dioxide as having an effect on kids with asthma, but 14 doesn't even remark on the potential for diminished lung 15 growth, which is far more potentially important in terms 16 of its implications.

And so I think it would have been helpful to have an extra sentence or two in that report, because I think it's one of the most important findings that we've heard about from the research that we're funding.

And I really appreciate Dr. Kleinman's remark, prospectively, between the Children's Health Study and the Fresno initiative where we may actually have an opportunity to gather the kind of data that finally will be, if not, a gold standard, at least a silver standard

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

32

1 and be scientific.

The last point I want to make, this is a spectacular group of experts, really knowledgeable in all these areas with respect to the lungs and with respect to pollutants. We're about to create a Children's Environmental Health Center within the EPA. I think that if you're going to develop a Children's Health Center, please ask some children's experts to participate. There really are a number of people who have a

10 specific interest, expertise and focus on pediatric,

11 pulmonary and other issues that really need to be 12 represented in the group of folks, whoever are picked, to 13 provide expertise to the California EPA.

14 So I hope that that process really reaches out 15 beyond the, you know, usual superb group of folks that we 16 deal with all the time into the community that's 17 interested in development, because that's what we're 18 talking about here, infants and children, and it's very 19 difficult to analyze them.

20 So given those couple of remarks, I really, as I 21 said at the very beginning, this was a big effort. I 22 think I understand a bit of, you know, you want to get 23 some attention, put infants and children out front. Don't 24 just put them out front, let's actually do something. 25 It's like the politician who kisses the child to get

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

33

elected and then forgets about the child because the child
 doesn't vote.

3 Well, I really hope that we really continue the 4 activity and I appreciate the compliance entirely with SB 5 25 and I compliment you guys on a really good job.

6 Thank you.

7 CHAIRPERSON LLOYD: Thank you for those excellent 8 comments, Dr. Friedman.

9 Ms. Riordan.

10 BOARD MEMBER RIORDAN: Mr. Chairman, it occurs to

11 me, do we have the time to perhaps do the preamble that 12 Dr. Friedman indicated? I think it's a good idea if we 13 could do it. It appears to me it has to be in to the 14 Legislature, when, no later than December 31st. And his 15 comments were something that would be less than two pages, 16 so could we include that?

17 BOARD MEMBER WILLIAM FRIEDMAN: Barbara, I think 18 it takes more than a week and a half with Christmas coming 19 up to do justice to it. And I think you have to identify 20 someone who would be thoughtful and wise enough to do it. 21 I'm less interested in getting it in right now 22 than our understanding that it needs to be part of a 23 future commentary that creates a framework within which 24 all the future findings, because this is not going to go

25 away, can be recognized. I don't think it can be done in

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

34

1 two weeks. Maybe it can.

2 DR. LIPSETT: Could I respond to these comments, 3 briefly, please?

I was just told by Dr. Melonee Marty, who's the Chief of our Air Toxicology and Epidemiology section, that we actually have a document that was recently presented at a public meeting, that it's almost as if it was tailor made to deal with this, so this is something that probably could be either incorporated or attached.

10

The other comment I wanted to make was I

appreciate your thoughtful comments. And I certainly agree that with toxicologically controlled types of exposures, it's very difficult to try to -- I mean ethically it's not possible really to deal with the children. However, we do, in addition to that, we do have epidemiologic studies, which, you know, observes children, free-living children in their natural environment.

And I think that the interpretation of these studies with respect to the standards is somewhat less problematic. But I certainly agree with the difficulties of looking at the age dependence of specific effects and how those carry through in development and into an adult. And evidently we do have a document that we could attach to it within a week or two.

25 BOARD MEMBER RIORDAN: I'm just thinking of those

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

35

1 who are going to be very interested initially with the 2 first report. And I think the point is well made, if you 3 draw those items that you mentioned to their attention, it 4 is, I think to our advantage to let them know early on 5 some of the difficulties, in that preamble.

6 So, I mean, that's -- if it could be done, that 7 would be wonderful.

8 BOARD MEMBER WILLIAM FRIEDMAN: Sounds like it's
9 been done, that would be terrific. I'd love to see a
10 copy.

11 DR. LIPSETT: I have not seen this document. Dr. Marty has just assured me though that it would meet the 12 13 specifications of what you would like. The other thing, too, is we could attach a copy or at least reference the 14 15 latest publication of the Children's Health Study. The 16 study had not yet been published at the time Dr. Frampton 17 wrote his report or when we wrote our summaries, but it has come out in the last month in the American Journal of 18 19 Respiratory and Critical Care Medicine.

And we could either, if you would like, we can 20 21 add a couple of sentences about or we could attach it as 22 well?

BOARD MEMBER WILLIAM FRIEDMAN: I think both 23 24 would be indicated, frankly.

25 DR. LIPSETT: Okay.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

36

CHAIRPERSON LLOYD: Seeing Dr. Marty back there, 1 is there any chance we could get a copy of that report 2 today? 3 4 DR. MARTY: I could probably have it faxed up. 5 CHAIRPERSON LLOYD: That would be great. 6 Any other comments or questions? 7 Dr. Burke. BOARD MEMBER BURKE: Can I ask Dr. Friedman a 8 9 question? I've gotten testimony in the past that waffled 10 kind of on this issue and I wondered if you could clarify

11 it for me.

12 If you have a given unit of pollution and an 13 adult is exposed to that given unit of pollution and a 14 child is exposed to that given unit of pollution, given 15 the smaller lung size of the child, is the effect on the 16 child geometrically proportionate to the effect on the 17 adult? And the second part of the question is, is there, 18 in fact, then a domino effect on the child which would not 19 be found in the adult?

20 BOARD MEMBER WILLIAM FRIEDMAN: There are so many 21 different aspects of that issue, first of all.

There may or may not be a relationship between the size of the lungs and the size of the insole. The volume of distribution of insole may be different, but the concentration of the insole depending on the rate of

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

37

breathing or what have you is so different, the child may be breathing at 30 to 40 times a minute and an adult 12 times a minute. But it may or may not have an effect depending on what the enzymes responsible for metabolizing the pollutant is with respect to age.

6 A kid may be revved up as a full-speed machine 7 and most adults that I know are not going at full speed 8 anymore. So, you know, there are so many variables that 9 there's not a simple answer. And you'd like to think 10 that, you know, children, by definition, are vulnerable, 11 when, in fact, in certain cases they're less vulnerable, 12 depends on the insole. And that's the reason, you know, 13 the epidemiology explains it. There's never control of 14 all the variables you'd like to know in an epidemiologic 15 study, to respond to your question.

16 And so what I've just done is a typical 17 professorial way of telling you I don't know with four 18 paragraphs.

19 (Laughter.)

20 CHAIRPERSON LLOYD: Mr. McKinnon.

BOARD MEMBER McKINNON: Also for Dr. Friedman. You talked about we're working on including the study. You also talked about, kind of, a practical step that we should include experts in the future. Should we add something to the resolution, a line or something, that

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

38

1 talks about including folks that do developmental medicine
2 or research?

BOARD MEMBER WILLIAM FRIEDMAN: I don't see any harm. I think that would be fine. I don't even know exactly how the process of appointment and identification will occur. I mean, we're all on board in wanting the very best people. If we can, sort of, have a little asterisk reminder, it certainly would be helpful.

9 I'm not anxious that we take over or make 10 specific recommendations, just that we be mindful of how 11 we have to reach out to get folks with that specific interest on that environmental health center. So if it's 12 13 possible to add that sentence, we ought to do it. CHAIRPERSON LLOYD: I think here at the bottom of 14 15 the first page, it says, "By current standard by 16 recognized independent expert." We could put a paren 17 there, "including", if that would be appropriate? 18 EXECUTIVE DIRECTOR KENNY: That's fine. 19 CHAIRPERSON LLOYD: Any other questions? I know I think we have one witness signed up. 20 But before that I'd like to ask, again, I see in the 21 resolution PM 10, "including sulfates by December 31st, 22 2002." In all honesty, from my viewpoint, that's not good 23 enough. We have to do it much faster. 24

25 This is an area where there's great concern. We

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

39

1 heard it last board meeting, we'll hear some more today, this afternoon, I'm sure, about particulates, relative 2 toxicity, et cetera. I think we need to accelerate it. I 3 know it says by December 31st, so there's the caveat 4 there. But from my experience when you've got a "by" it's 5 always "at". So I would suggest that we try to, you know, 6 aim for something like the Spring of 2002, because I don't 7 8 think it's unreasonable. It's over a year to get the work 9 done.

And there's a lot of emerging data here and in

10

Europe. And I recognize we'll never have all the information we need, but I would request that we actually put a harder target in there, because we're going to need the information, and sooner rather than later.

15 Dr. Lipsett.

16 DR. LIPSETT: Could I respond to that? I think 17 we will make every effort to accelerate this process, and 18 we'll work and ARB staff. I think it will be necessary to 19 probably contract out part of the reviews as we did for 20 the initial process, but we will make every effort to try 21 and accelerate it.

22 CHAIRPERSON LLOYD: That will be great. And 23 maybe I'd request the Executive Officer, if we see a 24 reason why this can't be met, keep us informed. 25 Otherwise, I will look for something in the Spring of

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

40

1 2002.

2 EXECUTIVE DIRECTOR KENNY: All right. 3 CHAIRPERSON LLOYD: We have one witness signed up 4 today Brian Lamb, District Counsel with the Great Basin APThatD. 5 6 Good morning, Brian. 7 MR. LAMB: Mr. Chairman, honorable members. With the lights and the cameras, I have to keep reminding 8 9 myself I'm not addressing the Florida Supreme Court. 10 (Laughter.)

11 MR. LAMB: I call you "Your Justices." I'm the District Counsel for the Great Basin Air Pollution Control 12 13 District. We're the air pollution control district 14 comprised of Alpine, Mono and Inyo counties, all of the 15 Eastern Sierra counties. We have four nonattainment areas 16 for particulate matter, including what EPA has designated 17 the largest single source of particulate matter pollution in the United States, which is the dry lakebed of the 18 19 Owens Dry Lake.

And, at this time, I'd be remiss if I didn't 20 acknowledge the contributions of several Chairmen of the 21 22 Air Resources Board, past and present namely John Dunlap, Chairman Riordan, and our current Chairman Lloyd for their 23 24 encouragement and support in getting us to address the air 25 pollution off the Owens Dry Lake.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

41

The status now is that the City of Los Angeles 1 has hired a contractor for \$72 million to implement the 2 first phase of the control measure. They have 3 structurally retrofitted the California -- I'm sorry, the 4 Los Angeles aqueduct to provide the water to control 13 5 and a half square miles of the Owens Dry Lake, which is 6 more than one-third of the area that's been described as 7 8 needing control.

9 So we're making progress. And a lot of the 10 credit for that comes from the encouragement and support

11 we've gotten from the top at ARB.

12 On behalf of my APThatO Ellen Hardbeck, I am here 13 to endorse the recommendation that you make particulate matter your first priority for review. We see in our 14 15 district the effects on sensitive populations of 16 particulate matter. We have a number of Indian 17 reservations, some of which are very close to Owens Dry Lake and to other sources of particulate matter. We have 18 a Navy base, which is actually in Kern County, but which 19 is affected very often by transport from Owens Lake and we 20 21 see acute episodes of both respiratory and cardiovascular 22 complaints based on these events.

I think I wanted to, along with the -- in picking up on Dr. Friedman's comments, that we're kind of in a funny situation with respect to the legislation by the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

42

State Legislature, which is asking us to review the location of our goalpost for particulate matter. At the same time, our statewide structure for making progress toward attainment of the State standards is very different for particulate matter than it is for, say, ozone and certain other particulate -- certain other pollutants.

7 In particular, we don't have, in California, the 8 same planning and control requirements for particulate 9 matter as we do for ozone and other pollutants. So, 10 although we do planning and we do controls and we have 11 deadlines under the federal Clean Air Act, for reasons 12 that aren't always clear, particulate matter has been 13 exempted from those planning and control requirements 14 under the California Clean Air Act.

So on the one hand, the Legislature is advising us, perhaps, to move the goalposts back for particulate matter, without providing us with a gameplan or a playbook or a time clock or requiring us to develop or adopt those to make real progress toward attainment of the State standards.

The dichotomy between the treatment of the State standard for particulate matter and for ozone has actually come up several times in the regulatory context in our district, where we've had to actually convince sources that the PM standard was an enforceable requirement and

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

not just a goal. And whenever that happens we call Leslie
 Krinsk and she gives us the right opinion, that it's a
 State requirement.

43

So I think when we look at the total framework for addressing particulate matter pollution in California, we're going to have to come to the issue of are we going to have a statewide plan or a statewide requirement of actually meeting these goals other than just addressing what the level should be.

One third point, and it's a little technical and

10

11 we've addressed it on the Board once before, so for a 12 reason that's not really clear, the particulate matter 13 standard for the State standard not only tells you what 14 the level of the standard is, it tells you what kind of 15 monitor you can use to determine the level of the 16 standard.

17 So in 1985 when the State standard was adopted, the State of the art for measurement of particulate matter 18 19 was the high volume size elective inlet monitor which is an Anderson Sampler. And in fact, I have the staff report 20 21 from 1985 and the staff said we have direction from the 22 Board to make sure that our monitors that we require are the same as the monitors that EPA is going to require. 23 Well, what happened is this requirement of using 24

25 that particular kind of monitor was set in stone. When

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

44

1 the standard was adopted, monitoring technology has moved 2 on, we find ourselves in the funny situation very often of 3 we're using EPA reference-method samplers and 4 equivalent-method samplers. All around Owens Lake we're 5 setting up more monitoring stations.

6 But in order to measure for the State standard, 7 we would have to buy the old kind of monitor that most 8 people don't use anymore, and which we feel, in our 9 situation, is not as accurate as the most current 10 monitors. So I'm asking your staff and you to consider in 11 reformulating this standard to allow for or provide that 12 the districts can use the federal reference method 13 monitors for attainment purposes of determining attainment 14 with the State standard.

15 CHAIRPERSON LLOYD: Thank you. I presume on the 16 latter point that the way in which you would actually 17 measure the concentration to compare the standard would be 18 addressed in the review.

19 EXECUTIVE DIRECTOR KENNY: I'm going to presume 20 the same thing.

21 CHAIRPERSON LLOYD: I think that. You make a 22 good point and clearly we feel that we're continuing to be 23 leaders in the area. And what you're saying is we have to 24 compare it with some old technology. I understand that 25 may probably be the rationale, but it seems that we should

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

1 revisit that.

45

2 MR. LAMB: Thank You. 3 CHAIRPERSON LLOYD: Thank you very much. Have 4 you got any other comments, Mr. Kenny? 5 EXECUTIVE DIRECTOR KENNY: No. CHAIRPERSON LLOYD: Since this is not a 6 7 regulatory item, it's not necessary to officially close the record. However, we do have a resolution before us 8 9 and I know we have Dr. Friedman's suggestion that I hope 10 that we will include that. I would also, if my colleagues 11 would be okay, I'd like to also include there that we
12 would try to complete the particulates by say April 30th,
13 2002 preferably, but no later than that.

So we're trying to ask the staff to do a little 14 15 bit of pressure. In all honesty, I think we do this with 16 the industry all the time, we keep pressure on. I think 17 it's -- why shouldn't we pressure the Government in this 18 case and some of our consultants. So I have every 19 confidence that we can meet those deadlines. 20 Do we have a motion for the resolution. BOARD MEMBER WILLIAM FRIEDMAN: So move. 21 22 BOARD MEMBER RIORDAN: Second. 23 CHAIRPERSON LLOYD: All in favor say aye? (Ayes.) 24 25 CHAIRPERSON LLOYD: Unanimous. Thank you very

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

46

much and thank you Dr. Kleinman, Dr. Ostro and Dr. Lipsett
 as well our staff, thank you.

3 We'll take a moment while we change staff and go 4 on to the next agenda item, that's the proposed guidelines 5 for the ZEV incentive program.

6 (Thereupon a pause in the proceedings occurred.) 7 CHAIRPERSON LLOYD: I'd like to continue with the 8 next item. The next item on the agenda today is 00-11-2, 9 Proposed Guidelines for the ZEV Incentive Program. 10 The incentive program is very timely and 11 significant. Assembly Bill 2061 by Assemblyman Alan 12 Lowenthal of Long Beach provides \$18 million in grants for 13 the purchase or lease of new zero emission vehicles during 14 this critical ramp-up period to the 2003 ZEV requirements.

15 A little more than two months ago, the Board held 16 its Biennial Review of the ZEV Program. Staff described 17 the results of its intensive investigations on the status 18 of ZEV development and implementation.

We also have an abundance of public comment from automakers, to battery manufacturers, ZEV drivers electric utilities and environmental groups. In addition, we received more than 85,000 letters and cards on the matter. We heard that ZEVs are significantly cleaner than the alternatives even after taking power plant emissions into account. We also heard that EV drivers love their

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

47

vehicles and that ZEVs are capable of meeting almost all
 of their transportation needs and are fun to drive as
 well.

But we were also told that there was a problem, there are no ZEVs available. And we heard significant disagreement over the marketability of today's ZEVs. Cost, range and recharge time are major concerns, with cost remaining a huge factor. ZEVs today are more expensive than their conventional counterparts and will continue to be so for the foreseeable future. 11 After listening to the testimony, the Board unanimously decided to keep the ZEV mandate in place. 12 13 Half of our State's smoq-forming pollutants come from motor vehicles. All together these vehicles drive a 14 15 quarter of a trillion miles per year, a quarter of a 16 trillion miles per year. We need more than low emissions. 17 We need zero emission vehicles. We also need the 18 technological innovations that have resulted from the ZEV 19 mandate. ZEVs are sometimes referred to as our gold standard, with no tailpipe or evaporative emissions and no 20 21 emission control equipment to degrade.

The Board did address concerns on several items: In particular, the need for product availability, the cost, the uncertainty regarding market demand, the cost and the need for incentives. We directed staff to develop

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

48

and propose regulatory modifications and other steps that 1 address some of these challenges to the successful 2 long-term implementation of the ZEV Program. 3 4 As I mentioned earlier, staff will be coming back to the Board on January 25th, 2001 with a specific 5 proposal. As I mentioned before, the staff report will be 6 out tomorrow. As luck would have it, the State 7 8 Legislature was working at the same time on its own 9 contribution to the ZEV Program, an \$18 million grant 10 program. And it, in fact, was signed by the Governor into

11 law.

So I'm looking forward to staff's presentation of how we can quickly put the money to use to address some of the concerns that the Board expressed at the ZEV hearing, so that, in fact, we can get these programs on the road quickly and address some of our not only air pollution concerns but also our fuel diversity.

18 At this point I would like to ask Mr. Kenny to 19 introduce the item and begin the staff presentation.

20 EXECUTIVE DIRECTOR KENNY: Thank you, Mr. 21 Chairman and members of the Board. Today staff is 22 proposing guidelines for a ZEV incentive program pursuant 23 to AB 2061. Governor Davis signed this bill into law on 24 September 30th and it became effective immediately as an 25 urgency bill. We believe it is important to get the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

49

program up and running because the bill authorizes grants
 for the purchase or lease of ZEVs beginning October 1st
 2000.

4 Staff has worked many long hours over a very 5 short period of time to bring these guidelines to you. 6 This is a significant ZEV incentive program. Eighteen 7 million dollars in grants. The is also a timely proposal, 8 providing incentives for ZEVs between October 1st, 2000 9 and December 31st, 2002, the ramp-up period to the 2003 10 ZEV requirements. 11 ARB is directed to develop and administer the program in consultation with the California Energy 12 13 Commission and the Department of Motor Vehicles. Local 14 air districts can also administer the program in their 15 jurisdictions on a voluntary basis. The program would 16 provide a maximum grant of up to \$9,000 for each eligible 17 ZEV purchased or leased by individuals, local government agencies, State agencies, nonprofit organizations and 18 19 private businesses.

The air districts are also allowed to augment these grants. There are sufficient State funds for, at least, 2,000 ZEVs. The bill directed ARB to develop guidelines for the grant program. Staff received input from various stakeholders, from the bill sponsors, the CEThat the Department of Motor Vehicles, the Franchise Tax

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

50

Board, the air districts and some vehicle manufacturers 1 2 and dealers in developing the proposed guidelines. 3 These guidelines contain a schedule for 4 implementing the program and identifying the recipients, a criteria for eligible vehicles, procedures for 5 administering the program and criteria to be met by air 6 7 districts volunteering to administer the program. 8 Judy Yee will make the staff presentation. 9 Judy. 10 (Thereupon an overhead presentation was

11 presented as follows.)

14

25

AIR POLLUTION SPECIALIST YEE: Thank you, Mr.
 Kenny.

--000--

15 AIR POLLUTION SPECIALIST YEE: Chairman Lloyd, 16 members of the Board, for today's agenda staff will 17 provide an overview of Assembly Bill 2061, describe 18 staff's proposed guidelines for implementing the zero 19 emission vehicle, the ZEV, incentive program created by 20 this bill, identify some issues that remain, offer staff's 21 recommendation for some changes to the proposed guidelines 22 and list the steps that staff will take to implement the 23 program.

24 We will conclude with a summary.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

--000--

51

AIR POLLUTION SPECIALIST YEE: Chairman Lloyd mentioned that AB 2061 creates an incentive program that will complement the Board's September decision to reaffirm the ZEV mandate. The new incentive program for zero emission vehicles will be a statewide program. The current incentive programs are geographically limited, covering seven specific areas of the State. The largest areas are the Bay Area and the south coast.

9 The program has the potential to introduce ZEVs 10 to additional areas of the State. The \$18 million are 11 available for grants up to \$9,000 per vehicle to help 12 consumers statewide purchase or lease 2,000 or more 13 vehicles, adding significantly to the more than 2,300 ZEVs 14 already on the road. The program is timely. It will 15 operate now up to 2003, during a period where automakers 16 are not required to make ZEVs available.

17 Currently, there are none or very few ZEVs 18 available to consumers or fleets. Staff reported to the 19 Board in September that it believes that a ramp-up to the 20 model year 2003 ZEV requirements is critical to building 21 ZEV demand and a sustainable market.

22 California has stepped up to the plate with a 23 significant \$18 million incentive program. The program 24 and adjustments to the ZEV regulation to be presented to 25 the Board in January will have the potential to be

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

52

significant stimuli, so that ZEVs become more available
 and demand for ZEVs can be met.

3

AIR POLLUTION SPECIALIST YEE: The Air Resources Board, ARB, is to develop and administer the program. The Energy Commission is to assist the ARB by providing information needed to establish incremental costs used to calculate the maximum available grant for an eligible ZEV. More details will be provided when staff describes the guidelines. 11 The program will provide vehicle incentives statewide. However, a local air district may volunteer to 12 13 administer the program within its own jurisdiction using these guidelines. Districts are also allowed to add to 14 15 the \$9,000 State grant. 16 --000--17 AIR POLLUTION SPECIALIST YEE: Moving on to the 18 proposed guidelines. 19 --000--20 AIR POLLUTION SPECIALIST YEE: The proposed 21 program guidelines are organized in the following manner: There is an introduction and then sections on program 22 administration, eligibility criteria and incentive 23 24 structure and a summary. 25 In the appendices are the administrative forms, a PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 53 1 grant application and instructions. These are tools for the program manager. An initial list of eligible ZEVs is 2 3 also included as an appendix. However, staff anticipates 4 that the list will need to be updated several times in the early stages of program implementation as automakers 5 decide to make ZEVs available to take advantage of this 6 program's incentives. 7

8 Staff was assisted by an informal working group 9 during the development of these proposed guidelines. The 10 participants included the bill sponsor, ZEV proponents, automakers and dealers, the administrators and local, regional and State agencies. The group met twice and provided review and comments on the earlier drafts of the guidelines. We were able to incorporate many of their suggestions in the proposed guidelines and appreciate their contributions.

17

--000--

AIR POLLUTION SPECIALIST YEE: How will the program be administered? A program manager will be established to administer the program for ARB. The proposed guidelines specify that the ARB program manager will administer the statewide program. Where a local air district volunteers to administer the program within its jurisdiction, the ARB program manager will work closely with the district to ensure that its implementation of the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

54

1 program is in accordance with the guidelines.

The ARB program manager will work with the 2 district to establish the mechanisms for transfer of State 3 4 funds for payment of the grants approved by the district. 5 As mentioned previously, an informally working group assisted staff in developing these guidelines. 6 Staff has proposed in the guidelines that such a working 7 8 group be expanded and meet on a regular basis at least 9 quarterly to ensure that the integration of State and 10 locally available ZEV incentives is easy, transparent and

11 seamless to the consumers.

12

13 AIR POLLUTION SPECIALIST YEE: How will the 14 grants be obtained?

--000--

15 It's staff's intent that the program design will 16 provide the consumer with a one-stop seamless shopping 17 experience. As with the current vehicle incentive 18 programs, the vehicle dealer will assist in the process. 19 The dealer will begin filling in the application for a 20 grant and will have the consumer complete and sign the 21 application as part of the vehicle purchase or lease 22 process.

The consumer then has two options for receiving the grant. We assume that most consumers will assign the grant to the vehicle dealer lessor to reduce the monthly

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

55

1 lease payments that the consumer must make. However, the 2 consumer is not required to sign the grant. In that case, 3 there will be a higher, upfront vehicle cost to the 4 consumer, but the cost will be defrayed by three equal 5 annual grant payments sent directly to the consumer.

6 The consumer may also apply directly to the 7 program manager to receive a grant retroactively. Staff 8 is aware of six to eight ZEVs that have been leased as of 9 October 1st, the effective date of this program. And 10 these vehicles would be eligible to receive grants 11 retroactively.

4

12 --000--AIR POLLUTION SPECIALIST YEE: The eligibility 13 14 criteria section of the guidelines establishes the 15 criteria for applicant eligibility and the criteria for 16 vehicle eligibility. 17 --000--18 AIR POLLUTION SPECIALIST YEE: The criteria for 19 applicant eligibility are clearly laid out for this program in AB 2061. The bill lists individuals, local 20 governments, State agencies, nonprofit organizations, and 21 22 private businesses as qualified recipients. The bill does 23 not, however, identify federal agencies as qualified 24 recipients. 25 Therefore, staff is proposing that federal PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 56

agencies and entities such as the US Postal Service and
 military facilities would not qualify for its incentives
 through the program.

5 AIR POLLUTION SPECIALIST YEE: AB 2061 identified 6 these criteria for vehicle eligibility. The vehicle must 7 be a new zero emission light-duty car or truck capable of 8 operation on the freeway, and it must meet all applicable 9 safety standards. The ZEV must be purchased or leased 10 between October 1, 2000 and December 31st, 2002 and be

--000--

11 registered with the Department of Motor Vehicles for use 12 in California.

13 Staff will now discuss the first three criteria
14 in more detail in the next few slides.

--000--

15

16 AIR POLLUTION SPECIALIST YEE: AB 2061 specifies 17 that qualified recipients may receive grants for a new zero emission light-duty car or truck eligible for the 18 19 program. ARB certifies zero emission vehicles in various categories, including passenger car, light-duty truck, 20 21 motorcycle and medium and heavy-duty vehicles. For the purposes of this incentive program, only zero emission 22 passenger cars or light-duty trucks certified by ARB will 23 24 be eligible.

25 AB 2061 specifically allows the definition of a

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

57

new ZEV to include previously leased vehicles that are
 upgraded substantially with new technologies, including
 advanced batteries and power electronics. The automaker
 will need to provide information specified in the
 guidelines to the ARB program manager.

6 Approval of such vehicles will be on a 7 case-by-case basis. None have been approved to date, but 8 a likely candidate is General Motors recalled EV1. It's 9 upgraded with advanced lead acid or nickel metalhydride 10 battery. 11 Staff is proposing that vehicles that are 12 required by our Memorandum Of Agreement with the 13 automakers be, as a matter of policy, ineligible for 14 incentives through this program. MOA vehicles placed 15 earlier received \$5,000 in local incentives and such 16 incentives remain available. Staff believes only a few 17 MOA vehicles will fall under the exclusion.

18 Language in AB 2061 excludes motorcycles, medium-19 and heavy-duty vehicles, such as delivery vans and buses. 20 Therefore these buses are not eligible for incentives from 21 this program also.

22

--000--

23 AIR POLLUTION SPECIALIST YEE: The ZEV
24 manufacturer must establish that their vehicle meets the
25 criterion that it is capable of operation on the freeway.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

58

1 The manufacturer must assure the ARB program manager in 2 writing that the vehicle has the ability to operate on the 3 freeway in compliance with the California Vehicle Code. 4 Neighborhood or low-speed vehicles limited by the vehicle 5 code to roadways with speed limits of 35 miles per hour or 6 lower clearly do not meet and are not eligible for 7 incentives from this program.

8 Additionally, the ZEV would not be eligible if it 9 is the manufacturer's recommendation to the consumer that 10 the vehicle should not be operated or should have limited 11 operation on a freeway.

12

13 AIR POLLUTION SPECIALIST YEE: Additionally, a 14 vehicle must meet all applicable federal and State safety 15 standards. The automakers will be required to provide 16 appropriate documentation to the ARB program manager 17 demonstrating that its ZEVs meet applicable federal motor 18 vehicle safety standards, the FMVSS, and California 19 Vehicle Codes.

--000--

20 Where the ZEV's are to be utilized solely for a 21 demonstration project or are imported in limited numbers, 22 manufacturers typically obtain waivers or exemptions to 23 the FMVSS. In such cases, the automaker will need to 24 submit copies of appropriate applications and approvals, 25 if applicable, to the ARB program manager.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

59

--000--1 AIR POLLUTION SPECIALIST YEE: A variety of ZEVs 2 3 will be eligible for incentives from this program. Shown 4 here clockwise from the upper left corner is a two-seat passenger car, a five-seat van, a two-seat City $\ensuremath{\mathsf{EV}}$ and a 5 light-duty truck. 6 7 --000--AIR POLLUTION SPECIALIST YEE: The proposed 8 9 guidelines describe the program's incentive structure. AB 10 2061 specifies that the maximum grant is 90 percent of the 11 ZEV's incremental cost over \$1,000 up to a maximum of 12 \$9,000 per vehicle. The Energy Commission will provide 13 incremental cost data to the ARB program manager. The 14 incremental cost is defined by the bill as the reasonable 15 difference between the cost of the ZEV and a comparable 16 gasoline or diesel fuel vehicle. 17 This is the same definition that the Energy 18 Commission utilizes for incremental costs. 19 Excuse me. This is the --20 21 CHAIRPERSON LLOYD: Take your time. I realize being on camera is a bit of a strain. 22 23 (Laughter.) 24 ZEV IMPLEMENTATION SECTION MANAGER BEVAN: This 25 is the same incremental cost --

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

60

CHAIRPERSON LLOYD: This is now Analisa Bevan
 taking over.

3 ZEV IMPLEMENTATION SECTION MANAGER BEVAN: This 4 is the same definition that the Energy Commission utilizes 5 for incremental costs that is used to calculate a lower 6 vehicle license fee for alternative fueled vehicles, which 7 includes ZEVs. Senate Bill 1782, which was sponsored by 8 Senator Thompson allows for the ZEV license fee to be 9 based on the cost of a comparable, conventionally fueled 10 vehicle. For the vehicle license fee exemption, the

Energy Commission compares the Manufacturer's Suggested 11 Retail Price, MSRP, for the ZEVs and comparable vehicles. 12 13 They have determined incremental costs for ZEVs ranging from \$11,000 to over \$20,000. ZEVs with 14 15 incremental costs in that range would be eligible in the 16 program for the maximum grant, \$9,000. 17 AIR POLLUTION SPECIALIST YEE: Thank you Analisa. 18 --000--

AIR POLLUTION SPECIALIST YEE: Moving on to the next item in today's agenda, the issues remaining. During the working group meetings various stakeholders were able to share their experiences with the existing incentive programs and they made recommendations or brought forth issues for consideration by staff.

25 As mentioned earlier, AB 2061 excludes certain

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

61

vehicles from being eligible for grants from this program.
 However, categories of excluded vehicles, such as zero
 emission motorcycles and neighborhood electric vehicles
 may provide air quality benefits. There are existing
 programs and we anticipate additional ones in the near
 term that provide incentives for these categories of
 vehicles.

8 Tax consequences are listed here as an issue only 9 because this is not fully resolved. Public agencies do 10 not pay taxes. However, some of the private consumers

accepting a grant may have tax consequences that will vary 11 with the individual circumstances. The program's 12 13 application and related materials inform grant recipients that there may be tax consequences associated with 14 15 accepting the grant. The recipient is encouraged to 16 consult with their tax preparer or a qualified tax 17 consultant to avoid any surprises at the end of the year. 18 There are local ZEV incentives available in many 19 areas of the State as previously mentioned. The proposed

20 guidelines are intended to streamline the application and 21 approval process for a grant and coordination with local 22 incentive programs will create a seamless user-friendly 23 incentive program for California's consumers.

24 ---00---

25

AIR POLLUTION SPECIALIST YEE: The various

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

62

stakeholders also reviewed and provide comments on the proposed guidelines. Staff has considered the comments received and is recommending modifications to the proposed guidelines as Attachment B. These changes provide clarification or correct errors in language. --o0o--AIR POLLUTION SPECIALIST YEE: The next slide

8 identifies the schedule for implementing this ZEV 9 incentive program. Staff will begin by holding an initial 10 implementation meeting of the working group in the next 11 week or so. Staff will accept applications almost 12 immediately. As mentioned earlier, staff is aware of 13 several instances of ZEVs being leased since October 1. 14 Staff will conduct outreach activities to prov

Staff will conduct outreach activities to promote awareness of the incentive program on an ongoing basis. And staff has targeted February 2001 to begin distribution of grants.

18

10

--000--

AIR POLLUTION SPECIALIST YEE: Here we list planned outreach activities. Staff is in the process of developing outreach materials to distribute. The interested public will be directed to our zero emission vehicle web site or alternatively our toll free number 1-800-END-SMOG for our information on the program. If they have questions, they are provided with telephone and

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

63

1 E-mail contacts to knowledgeable program staff. We intend to hold informational workshops for 2 3 auto dealers. Staff will also continue to coordinate with 4 managers of other incentive programs. Staff will meet quarterly with an expanded working group to resolve any 5 issues that may come up during program implementation. We 6 7 expect that the group will also be an excellent source for 8 suggestions for additional outreach activities. 9 --000--

AIR POLLUTION SPECIALIST YEE: To summarize, ZEV

11 incentives will help with the transition to the 2003 ZEV 12 requirements. The proposed guidelines will be used by the 13 ARB program manager and volunteer local air districts to 14 implement a consistent program throughout the state and 15 for the timely award of incentives.

16 The application process will occur primarily 17 through the vehicle purchase or lease process that 18 typically takes place at the auto dealer. Staff and 19 stakeholders recognize that quick response to 20 implementation issues and coordination with existing 21 incentive programs is essential for an effective 22 user-friendly program.

23 We would like to thank the stakeholders who 24 assisted in developing these guidelines, the bill 25 sponsors, ZEV proponents, automakers and dealers, fleet

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

64

administrators, local air districts and regional and State
 agencies, including the Energy Commission, the Department
 of General Services, DMV and the CHP.

4 This concludes staff's presentation and we'd be5 happy to take any questions.

6 CHAIRPERSON LLOYD: Thank you very much. Do the 7 Board Members have any questions?

8 Dr. Burke.

9 BOARD MEMBER BURKE: I'm not quite clear on what 10 our role is in our outreach to people to educate them to

the availability of money. In my briefing from the staff, 11 they did an excellent job in filling me in on the program, 12 13 but I kept asking how do people who are not techees, who are not advocates of clean air, who are not friends of ARB 14 15 or their local air districts find out about the program? 16 And the discussion that was kind of stopped at 17 the dealer, which I have a grave question about how much they'll do to educate the public in general. 18

19 CHAIRPERSON LLOYD: You have some experience in 20 that area, I understand.

21 (Laughter.)

BOARD MEMBER BURKE: Yeah. So I was just hoping that we would have some -- and they said that there is an outreach program. I just think that it's important that we know about it and that it does go forward to those

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

65

areas. I think we ought to concentrate on people who are
 exactly -- who would never think about owning an electric
 vehicle, because that's where the real education, I think
 needs to be.

5 CHAIRPERSON LLOYD: Comments from the staff? 6 ON-ROADS CONTROLS BRANCH CHIEF KITOWSKI: I'll 7 start it. There's certainly no disagreement there. 8 Outreach is going to be a key critical factor of what we 9 are going to be doing in the future. And the outreach of 10 this program is simply a small part of the larger outreach

package and the work that we need to do over the next 11 couple of years. And I think you'll be seeing more of the 12 13 larger outreach program for the ZEV requirement in January, but there's no dispute that outreach is a 14 15 necessary component of zero emission vehicles. 16 And we actually, although the dealers and -- I 17 understand the skepticism about the dealers. We actually do, though, look forward hopefully to partnering more 18 19 extensively with dealers and automakers in the future as they really do need to ramp up to higher production levels 20 21 in the future. 22 BOARD MEMBER BURKE: Can you tell me how Arizona was so successful in -- well, wait a minute, I'm --23 24 (Laughter.) 25 BOARD MEMBER DeSAULNIER: Define success?

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

66

1 (Laughter.) 2 BOARD MEMBER BURKE: I've only got six EVs in my garage from Arizona, so I'm looking for a couple more. 3 4 (Laughter.) 5 BOARD MEMBER BURKE: But you see, even, you know, everybody is not inclined to do those kind of things, so 6 the word had to get out someway other than, you know, 7 8 here's some free money, let's go down and get it. 9 (Laughter.) 10 BOARD MEMBER BURKE: I know that, you know, it

11 was a terrible situation, but maybe in that mess there's 12 something that we can learn and utilize.

13 CHAIRPERSON LLOYD: I don't know whether -14 BOARD MEMBER BURKE: Do you know how they
15 marketed to the general public, was there government
16 involvement or was it totally the dealers?

EXECUTIVE DIRECTOR KENNY: Dr. Burke, we can look at the Arizona experience and try to learn from it. I think one of the things that we probably can't copy with the Arizona experience is, to a certain extent what they ended up doing, was almost giving out free vehicles. It wasn't just simply subsidies on vehicles.

23 BOARD MEMBER BURKE: \$221 million.

24 EXECUTIVE DIRECTOR KENNY: Yeah. And we're 25 obviously not quite there.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

67

(Laughter.)
 EXECUTIVE DIRECTOR KENNY: But we can look at
 essentially some of the techniques that they used to try
 to market to the public and see what might be advantageous
 here in California.
 BOARD MEMBER BURKE: I understand because of the
 Arizona experience, Ferrari is not going to be looking to
 do an EV.
 CHAIRPERSON LLOYD: Professor Friedman.

BOARD MEMBER HUGH FRIEDMAN: Well, we had talked

10

previously when we were discussing revisiting the mandate about trying to develop an effective coalition of the environmental organizations and others who are natural supporters of the ZEV mandate and of getting these vehicles placed and used and on the road, so that others will see them and they can be given a fair test in the public.

18 And it seems to me that with the reality of the 19 subsidy, as modest as it is, but perhaps with more to come, hopefully, that we could enlist the support of the 20 long list of legitimate organizations, all of whom who 21 22 have members, and try and get them through their news letters, through -- try and enlist their support in it, 23 and get it out, that there are these subsidies, and then 24 let people -- and whatever information we can help them 25

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

68

disseminate about how to go about accessing these
 subsidies, the leases and all that.

3 EXECUTIVE DIRECTOR KENNY: You're right, we can do that. And I think, actually, one of the things you're 4 probably going to hear in a few moments is from Dave 5 Modisette. And when he talks about, you know, what his 6 organization has been doing and really, quite honestly, 7 his efforts in Electric Transportation Coalition's efforts 8 9 were very instrumental in the bill getting passed. 10 And I think we will see a lot of effort to

essentially kind of partner with them, partner with the environmental organizations to make sure people are aware of what's happening and what opportunities are out there.

BOARD MEMBER BURKE: Obviously, my concern is in 14 15 those areas where normally those kind of communications 16 are not viable in the areas of where the environmentally 17 challenged people are also economically challenged. So the natural assumption is because you're economically 18 19 challenged, that you're not going to go out and buy an EV. And I don't think that that is necessarily so if you're 20 properly educated, because those environmentally impacted 21 22 communities need the most help.

And I think, quite honestly, my experience in the last seven years, is they're becoming more aware of the environment as a whole and they have an interest now,

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

where before it was like what, you know. But now there is
 an interest, so I think if we can encourage that and
 enhance that, I think we'll be serving the public
 interest.

5 CHAIRPERSON LLOYD: Supervisor DeSaulnier. 6 BOARD MEMBER DeSAULNIER: Somewhat along the 7 lines of Professor Friedman, and, Mike, maybe you can 8 respond to it, but in terms of this formula, I think is a 9 good beginning, but with new money maybe we can be more 10 proactive and be flexible, not so much just on subsidies

69

11 but looking at other money grants, sustainability, 12 partnering with transit agencies around station cars and 13 things like that. Maybe in a legislative -- now is a good 14 time to do it, to start looking for an author who might be 15 willing to carry that.

But I'm particularly interested in more flexibility, so we don't just get hooked to the subsidizing and the fine example of Arizona, because there are other ways I think, and also to blend funding around, particularly sustainability.

21 EXECUTIVE DIRECTOR KENNY: Actually, we will be 22 looking at that. And one of the things that we actually 23 had a whole lot of hopes for was kind of a transportation 24 connection here. And what would occur is that maybe using 25 station car concepts or using other types of electric

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

70

vehicles in the context of transportation networks would
 actually provide a lot of value to a lot of people.
 And what would occur then is instead of a car
 being associated with a person, the car would be
 associated with a community and there would be multiple
 users of that particular vehicle. And we are trying to
 figure out mechanisms that we could pursue to incentivize
 that.

9 BOARD MEMBER DeSAULNIER: And also around rental10 fleets, particularly at airports. I think those are

11 exciting possibilities. So while this is good, I don't 12 think we should get locked into the formula. It might be 13 good to really start to work on it now.

14 CHAIRPERSON LLOYD: Thank you.

15 Mr. McKinnon.

BOARD MEMBER McKINNON: Yeah. I understand this is one grant program in the whole, kind of, scheme of ZEVs. And maybe, you know, as we get into things and in the next couple of months, we can, you know, broadly nail down some of the issues.

The one thing I think is really important is if somebody is making a buy or lease decision on buying a ZEV, on getting a ZEV, is that there be a source. And I guess folks are working on a web page, and someone may want to talk about that, but a source of kind of seamless

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

71

information, so you can get all the information on all of 1 the subsidies available depending on where you live and 2 then also so you can consider issues like installation of 3 4 the charger at your house, so that a person kind of gets everything they need to make that decision and then know 5 what they need to move through to do it. And I think it's 6 real helpful to consumers. And it's certainly not mine. 7 8 I think there's people way ahead of this. It just hasn't 9 come up.

CHAIRP.

10

CHAIRPERSON LLOYD: Dr. Burke, Mr. Calhoun.

BOARD MEMBER BURKE: I'm sorry.

12 BOARD MEMBER CALHOUN: One of the things I notice 13 in the staff report in there, no incentives would be offered for the neighborhood electric vehicles. Will you 14 15 talk about the city electric vehicles, and I guess there 16 is, sort of, a catch all there that would allow the staff 17 to determine whether or not these vehicles can be operated on a freeway. Can you clarify that. I looked at the bill 18 19 and I also looked at the staff report and it seems to me that there is some flexibility in there that allows the 20 21 staff to make the determination as to whether or not the 22 city electric vehicles can operate; is that correct? ON-ROADS CONTROLS BRANCH CHIEF KITOWSKI: What 23 the bill clearly says is the vehicle has to be freeway 24

25 capable.

11

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

72

1 BOARD MEMBER CALHOUN: What does that mean? ON-ROADS CONTROLS BRANCH CHIEF KITOWSKI: But it 2 doesn't define what freeway capable is. By saying freeway 3 capable, we feel it clearly takes away the neighborhood 4 electric vehicles. When you look at city electric 5 vehicles and you look at California requirements for being 6 able to operate on the freeway, the basic requirement 7 8 comes down to not impeding traffic. And so there aren't 9 really -- the State laws on being able to operate on a 10 freeway are rather vague and the city electric vehicles do 11 qualify.

12 Where we're, sort of, drawing the line at our 13 proposal would be that we are -- there's a lot of 14 incentive for the manufacturers, natural incentive, not to 15 put a vehicle in situations that it would be dangerous, 16 for liability reasons.

17 So we're feeling that the manufacturer will be 18 responsible in assessing whether their vehicle is, in 19 fact, freeway capable. And if they put any limitations on 20 it with regard to their consumers, then they would be out 21 of this program.

22 So if the manufacturer is fully saying that their 23 vehicle is capable of operating on the freeway, and 24 therefore they're accepting the liability associated, 25 potential liability associated with that, we feel that's

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

73

1 good enough for the program, and it does still comply with 2 the State law that is on the books.

3 BOARD MEMBER CALHOUN: Let me tell you what my 4 concern is. My vote at the September hearing was to 5 support advancement of technology. And I would hate to 6 see us take, what I call, sort of, a catch-all approach 7 just to comply with a regulation. And I certainly don't 8 want to see us offer a lot of incentives to something that 9 isn't going to take us where we want to be about 20 years 10 from now. 11 Bob Cross mentioned at the workshop that he thought we ought to be looking down the road, where do we 12 13 want this program to be 20 years from now. And I think 14 that it's certainly consistent with my views. And I think 15 that we ought to be looking at something that's going to 16 force technology, and maybe I'm taking a preemptive strike 17 here relative to what's happening in January, but I just have trouble with having golf carts getting incentives, 18 19 for certainly you can go buy those today.

EXECUTIVE DIRECTOR KENNY: If I might, we don't 20 think that the low-speed vehicles or the neighborhood 21 22 electric vehicles will get any incentives.

23 BOARD MEMBER CALHOUN: And I think what we're --EXECUTIVE DIRECTOR KENNY: We don't think they 24 25 will receive any incentives under the proposal that we're

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

74

making today. Well, actually what Mr. Cackette is saying 1 is that they will not. I'm actually saying I don't think 2 they will. And the reason I'm saying that is a low-speed 3 4 vehicle would not be able to be freeway capable. And so what ends up happening there is that because it is not 5 freeway capable it cannot meet one of the criteria that is 6 essential for it to receive an incentive. 7

MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: 8 9 There's a minimum speed limit on the freeways. And I 10 think it's 45. It's gone up. It used to be 45.

11 (Laughter.)

EXECUTIVE DIRECTOR KENNY: Let me go one step 12 further, which is essentially if you take --13 BOARD MEMBER WILLIAM FRIEDMAN: I think it's 80. 14 15 (Laughter.) 16 EXECUTIVE DIRECTOR KENNY: It's 80, so we're 17 safe. I think the real key here, because essentially what Mr. Kitowski was talking about, which is that you cannot 18 19 impede traffic when you're on the freeway, otherwise you're operating illegally. And the difficulty to a 20 21 low-speed vehicle with a top speed of 35 miles an hour 22 will impede traffic on a freeway.

And consequently, it will not be freeway capable, and consequently it will not be eligible for dollars.

25 BOARD MEMBER CALHOUN: It would impede traffic on

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

75

some of the surface streets also, I just thought about it. 1 2 I think other thing, Mr. Calhoun, is that, you know, we are looking at the issue of neighborhood electric 3 4 vehicles and we are trying to address that in the staff proposal that will be released tomorrow with regard to the 5 ZEV Program for your consideration next month. And we 6 have actually taken a lot of these very issues into 7 8 consideration in terms of that staff proposal.

9 And the beauty you espoused a moment ago about 10 looking down the road, where do we want to be in the 11 future, that is exactly the kind of thinking that we are 12 involved in.

13 CHAIRPERSON LLOYD: Mr. Kenny, dealing with vehicles, again, we know we've got a couple of letters 14 here vis-a-vis the sparrow. Now, my understanding is that 15 16 this is prohibited under the regulation, because it's 17 classified more as a motorcycle, am I correct on that? 18 EXECUTIVE DIRECTOR KENNY: You're correct. It is 19 classified as a motorcycle and we were not proposing funding for motorcycles under the program. 20 21 CHAIRPERSON LLOYD: So we're prevented by the law 22 from doing that. EXECUTIVE DIRECTOR KENNY: Yes. 23 24 CHAIRPERSON LLOYD: Thank you.

25 Mr. McKinnon.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

76

BOARD MEMBER McKINNON: In that you raised that, I look forward to thinking of some way to include motorcycles and vehicles like the sparrow. I, however, agree that the law doesn't provide that. It's not only something like a motorcycle, it's single passenger. And I think the law looks pretty clear on that.

But, you know, maybe we can legislate some
approach to motorcycles and smaller vehicles like that,
because the sparrow certainly will get commuters to work
and back with zero emissions and so that is something we

11 should look towards.

12 CHAIRPERSON LLOYD: And Mr. Cross, I think --13 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: I 14 had an extended conversation with our attorney and she 15 assures me that there is no speed limit anymore, minimum 16 speed limit.

I recall a sign, so I don't know maybe the law changed. But I think that the point remains that a vehicle which is designed for places that are speed limited to 35 doesn't meet the test of having a minimum speed, which is freeway safe.

In other words, if someone were traveling at 35 miles an hour on a freeway on one of the Los Angeles freeways they'd get a ticket for obstructing traffic. Variation that if -- and my recollection was that if not

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

77

1 the absolute law, the guidance that the CHP used to use was 45, but that was in a world with a speed limit of 55. 2 3 So I'm saying that, as far as I can see, there's 4 no way that a neighborhood vehicle would qualify as a freeway-capable vehicle. 5 6 CHAIRPERSON LLOYD: Thank you. 7 Dr. Burke. BOARD MEMBER BURKE: They're lucky if they get a 8 9 ticket in Los Angeles, you know, it's a drive-by shooting,

10 you know, you get one between the eyes.

11

But I just wanted to go back --

12 BOARD MEMBER RIORDAN: So you don't want to drive 13 slow, do you.

BOARD MEMBER BURKE: Mr. McKinnon's comment about 14 15 the Internet. There was a special on 20/20 last week, 16 which indicated that they were doing a comparison of all 17 the Internet car shopping, what do you call them, sites on the Internet, and it's now so that you can go in and 18 19 compare every automobile at one time with one scroll, and that means cost, insurance costs and those kind of things. 20 21 I think it's very important that we be in touch 22 with those web sites and make sure that with the grant program that our -- that the vehicles which are going to 23 24 be offered in California be highlighted in their 25 comparison studies.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

78

EXECUTIVE DIRECTOR KENNY: We can do that. That's a good idea, because what we can do is contact the site and let them know that these subsidies are available so that when people are scrolling down, they see that. In fact, not only is the vehicle available but there's a subsidy available with it, so we'll follow up on that. CHAIRPERSON LLOYD: Any other comments from the

8 Board?

9 With that, we have two witnesses signed up. And10 so I'd like to ask them to come forward. We have Dr.

11 Chung Liu from the South Coast AQMD, Dave Modisette from 12 the California Electric Transportation Coalition.

13 Good morning.

14 DR. LIU: Good morning, Dr. Lloyd, Members of The15 Board.

16 The South Coast AQMD is interested in 17 administering the ZEV incentive program in our area and 18 will continue to support the deployment of zero emission 19 vehicles. The South Coast Mobile Source Air Pollution 20 Reduction Review Committee, the MSRThat has been a pioneer 21 in establishing buy-down incentive programs for zero 22 emission vehicles and developing infrastructure in our 23 area.

With the ongoing cooperation of all interestedparties including participation in ARB's quarterly working

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

79

group meetings, we hope the effort will result in a
 coordinated and efficient program that will minimize the
 administrative costs.

We have the following three comments on the ARB staff proposal. First, in the interest of maximizing incentives for qualifying vehicles, the South Coast AQMD supports the determination of incremental costs based on vehicle manufacturers suggested retail prices, as proposed by the ARB in Appendix That of the guidelines dated November 28, 2000. 11 Second, although funding allocation to local air districts is not fully described in the proposed 12 13 guidelines, the South Coast AQMD would support an approach 14 of population-based allocations in the beginning to air 15 districts with the ability to redistribute unused funding 16 to areas with greater demonstrated demand for that, 17 because we have a large population and really bad air quality. Also, we have a very well established 18 19 infrastructure so if there's any unused funds, we'd like to have a mechanism to very really pull it to our 20 21 direction.

Third, while the South Coast staff believes that the ZEV incentive program will help reduce the short-term incremental costs of zero emission vehicles, we're relying heavily on the automakers and the strength of ARB

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

80

1 requirements to ensure that full-function zero emission 2 vehicles are made available. We will be glad to work with 3 ARB to make sure that those vehicles will be available. I 4 think that's a major issue on our mind, because it's 5 questionable.

6 Thank you.
7 CHAIRPERSON LLOYD: What part of that is
8 questionable, Chung?

9 DR. LIU: We don't know how soon or how fast 10 those vehicles can be made really available in the market 11 and we don't have that kind of assurance from the OEMs.
12 BOARD MEMBER CALHOUN: When you speak of the
13 vehicle, you're talking about full-functioning electric
14 vehicles?

15 DR. LIU: Yes.

16 CHAIRPERSON LLOYD: I'm sure we'll hear more 17 about that on January 25th.

DR. LIU: Right. And for the next two years, at this time, if you go out to purchase EVs, it's not that easy. And so how soon those vehicles will be -- how soon they're going to start to produce again, we really have to work on.

23 CHAIRPERSON LLOYD: We certainly have an interest 24 in that as well as in working with you, so any help we can 25 get, we'd be delighted to accept that.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

81

1DR. LIU: Thank you.2CHAIRPERSON LLOYD: Comments from the Board?3Dr. Burke.4BOARD MEMBER BURKE: I have to admit, I'm5confused. The grant that ARB is giving and the grant that6we at South Coast give through MSRThat that one added on7top of each other, or can you get both of those or do you

8 just get one of those?

9 ON-ROADS CONTROLS BRANCH CHIEF KITOWSKI: If I10 may. You could get both of those yes. They are

11 independent grants. And when we talked about having a 12 seamless operation, that is part of the seamless 13 operation. We want to make sure people have the most 14 up-to-date information. The \$9,000 grant will be 15 available statewide. And the local districts may continue 16 the current grant operations that they have.

BOARD MEMBER BURKE: We're currently at \$5,000?
ON-ROADS CONTROLS BRANCH CHIEF KITOWSKI: Yes.
BOARD MEMBER BURKE: So it could be \$14,000 if
someone --

21 DR. LIU: The bill does not preclude to have that 22 out. But our understanding is MRSC --

BOARD MEMBER BURKE: If you applied that to the lease, has anybody figured out how much a car would be on the lease? I hear Arizona creeping up on me here.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

82

(Laughter.) 1 2 CHAIRPERSON LLOYD: Dr. Burke, I think next speakers probably will be addressing that. 3 4 BOARD MEMBER BURKE: Okay, fine. Thank you. 5 CHAIRPERSON LLOYD: Thank you Chung. Dave Modisette. 6 7 MR. MODISETTE: Yes. Thank you, Chairman Lloyd and Members of the Board. I'm Dave Modisette. I'm 8 9 Director of the California Electric Transportation 10 Coalition. Our organization was one of the co-sponsors of 11 the legislation, Assembly Bill 2061. The other co-sponsor 12 was the Steven And Michelle Kirsch Foundation. And the 13 Kirsch Foundation was not able to send a representative 14 today, but my comments reflect the views of both 15 organizations.

16 We first want to thank --

17 CHAIRPERSON LLOYD: Please. No, he can't --18 BOARD MEMBER BURKE: Sorry.

MR. MODISETTE: We first want to thank the ARB staff for their hard work and thoughtfulness in developing the guidelines. The purpose of AB 2061 was to make the price of a full-service zero emission vehicle comparable to that of a conventionally fueled vehicle. And we are pleased to see that in the introduction to the proposed guidelines the goal is repeated as the purpose for the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

83

1 program.

And with that purpose in mind, I guess it is important that you understand that the incentives provided under AB 2061 were designed to be complementary to the existing and planned incentives provided by other State agencies and local air districts.

7 In other words, AB 2061 was not designed as a 8 replacement for other State and local incentives. If it 9 were, we could not achieve our stated purpose, and, in 10 fact, we may have achieved very little in terms of 11 additional benefit to consumers.

12 Let me briefly illustrate this point from the 13 consumer point of view with the two-page chart that's been handed out. There's three columns on the chart. It lists 14 15 incentives before passage of AB 2061. The next column 16 lists the impact to the consumer when you take the 17 existing incentives, plus the incentives provided by AB 2061 and then the last column would be if other State and 18 19 local agencies were to terminate their incentive program so that the only incentive provided to consumers would be 20 21 that under AB 2061.

And you can see that before passage of AB 2061, the current incentives, which is the incentive that's been described, its a \$5,000 incentive. Half of that money is provided by the California Energy Commission and other

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

84

half is provided by the local air district with the
 exception of the South Coast that provides the full \$5,000
 incentive.

The impact of that on the consumer is about \$150 reduction in the lease price, three-year lease price. So you can see what I've listed here as a typical monthly lease price without any incentives is \$650, which just as a foot note our organization believes is very, very high. And we've always encouraged automakers to use pricing techniques to try to pull that down. We think that they 11 can do that, they have the power to do that and they
12 should do that.

But nevertheless, you begin with that \$650 monthly lease price, you take off the \$150 a month that is provided by the current incentive and you end up with a monthly lease price of about \$500, and that's frankly what people are paying today, you know a little more for some vehicles, a little less for some vehicles.

And we really think that is too high for the average person. That's not competitive in the world of lease prices. So then in the next column you can see what the impact of AB 2061 was. And our goal was really to cut that \$500 lease price in half, and that's exactly what the bill does. It translates into about a \$250 reduction in the lease price, so that the lease price to the consumer

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

85

for the vehicle is now only \$250 a month, which we believe
 is the point when you begin to reach price parody with
 conventional vehicles.

4 Now, if it turns out that the Energy Commission 5 and local air districts withdraw their incentive programs 6 at some time during the period of this legislation, the 7 third column illustrates what will happen, and that is the 8 benefit to the consumer would be \$250, so that the lease 9 price would go down to \$400, still a significant benefit, 10 but really not where we wanted to be. 11 Now, on the second page, you know, just to make the situation worse, I quess, is if there is a ruling from 12 13 the IRS that the grants provided under the program 14 constitute taxable income, then a large portion of this 15 grant is going to go away to the federal government and 16 even to the State government, and the impact of that is 17 going to be to greatly reduce the incentive value to the 18 consumer.

19 So on the second page, I illustrate that impact under a scenario where the IRS finds that this is taxable 20 income. And can you see in the last two columns, if 21 22 that's the case, the incentive provided by AB 2061 alone, that is without the Energy Commission or air district 23 incentive will be \$150 only, the lease price will go down 24 25 to \$500.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

86

Well, that's exactly what it is today under the 1 current Energy Commission and air district program, so we 2 won't have made any headway at all if the other agencies 3 withdraw their incentive programs. If they keep their 4 incentive programs, however, even with tax implication, 5 even with the taxation of the grant program, we can still 6 bring that lease price down to about \$350, which is not as 7 8 low as we had hoped, but we believe is in the ballpark of 9 what a consumer would pay for a comparable vehicle.

So my purpose in explaining this to you today is

10

11 to really encourage you to meet with the Commissioners at the California Energy Commission, to meet with the Board 12 13 members of the major urban air districts, to persuade them 14 to continue their existing incentive programs through the 15 life of this program and that would include the Energy 16 Commission's new efficient vehicle incentive program, 17 which they received \$5 million for in the budget and which is currently under design at the Commission. 18

We also want to encourage you to work with automobile manufacturers to encourage them to establish purchase and lease prices for ZEVs that, after accounting for incentives, are comparable to conventional vehicle prices in the marketplace. As part of that effort, you may want to review the results of past actions by the Mobile Source Air Pollution Reduction Committee to

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

87

establish a maximum MSRP and a maximum monthly lease price as a condition of eligibility for existing ZEV incentives. Lastly, we believe it is critically important that all incentive programs be closely coordinated, so that that prospective ZEV owners don't have to deal with multiple agencies and multiple applications to obtain the benefits of ZEV incentives.

8 Ideally, there would be a single source of 9 information for all ZEV incentives, and a single 10 coordinated application process. We are extremely pleased 11 that the proposed guidelines have adopted this as a goal 12 and have proposed formation of a working group to 13 accomplish this.

14 So, in conclusion, the California Electric 15 Transportation Coalition and the Kirsch Foundation urge 16 adoption of the guideline document before you with a 17 recognition that there is more work that needs to be done 18 with our sister agencies and other stakeholders to get 19 maximum benefits from this program.

20 Thank you.

CHAIRPERSON LLOYD: Thank you very much, Dave.
Any comments, questions from the Board?
Yes, Ms. D'Adamo.
I would like to thank you, by the way, you and

25 the Kirsch Foundation for all your efforts, and successful

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

88

1 efforts, too.

2 Thank you.

BOARD MEMBER D'ADAMO: I'm just wondering, a question of the witness or of staff, are there any other options as to how we could structure it so that we could get around the taxable income issue?

7 GENERAL COUNSEL WALSH: We have consulted with 8 both the federal and state taxing agency. And the advice 9 that we've gotten, as a general rule, these grants would 10 be taxable income to the recipients. There may be 11 individual taxpayers whose circumstances may dictate a 12 different result. But we were not able to come up with 13 anything that would allow us to structure it in a 14 different way, for example, in terms of how the money was 15 paid out to the dealers as opposed directly to the 16 recipients that would have affected the taxability of the 17 grant.

BOARD MEMBER D'ADAMO: What is different about AB 2061 and the existing incentives that are out there such that the existing incentives apparently there are no taxable income issues, correct, what's different about the two program structures?

23 GENERAL COUNSEL WALSH: I don't know that there
24 are no taxable issues with respect to those programs.
25 MR. MODISETTE: This is actually a difficult

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

89

1 issue or a gray area. Under the existing program the 2 \$5,000 grant from the Energy Commission and the air 3 districts goes directly to the vehicle manufacturer, and 4 the vehicle manufacturer then reduces the capital cost of 5 the vehicle and passes that benefit through to the 6 consumer in terms of reduced lease payment.

Now, a number of the automakers believe and
believe very strongly that because of this structure,
there is no tax implication either to them, because they
received the grant, or to the consumer. They believe, you

11 know, they are providing the same kind of rebates that 12 they provide for other vehicles. They're reducing the 13 cost of a product that the consumer is buying and 14 therefore there is no tax implication either to them or to 15 the consumer.

16 The only difference with the program is that 17 there is an option here for the consumer to receive the 18 funds directly, that is, a check would go from the Air 19 Resources Board or the State of California directly to the 20 consumer. And some people believe that that option means 21 that there is a tax effect, which apparently, you know, I 22 don't know, may apply, I'm not an attorney, may apply even 23 in a situation where the consumer elects to pass that 24 forward to the vehicle manufacturer.

25

BOARD MEMBER D'ADAMO: Because the option exists

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

90

1 in the statute?

2 MR. MODISETTE: That's one of the things that 3 we're investigating.

GENERAL COUNSEL WALSH: Right, but in this case the bill is written so that the dollars do, in fact, go to the recipient dealer directly or indirectly through the dealer as opposed to going to the manufacturer.

8 BOARD MEMBER D'ADAMO: Is staff researching the 9 issue or --

10 GENERAL COUNSEL WALSH: Yes.

BOARD MEMBER D'ADAMO: Could we hear back when 12 you do resolve that?

13 GENERAL COUNSEL WALSH: Yes.

STAFF COUNSEL DAVIS: If I may comment for the 14 15 benefit of the court reporter and the Board members, I'm 16 Victoria Davis. I'm staff counsel who's been assigned to 17 the program and I'm the person who actually spoke to someone at the IRS. And I was told that there are options 18 19 for us to request determinations in writing of varying levels of formality and bindingness. And we may, in fact, 20 be limited by our options with how the bill is already 21 written. But if we do request a determination, it may 22 23 offer guidance should we seek future legislation for future similar programs. 24

25 Also, it was pointed out to me, especially since

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

91

1 these grants will not be issued till next year, any tax
2 consequences won't have to be dealt with concretely until
3 after the end of the year. So we may be able to get
4 information and have accurate information to pass along to
5 the consumers within a few months. It's not completely
6 within our control certainly.

7 BOARD MEMBER D'ADAMO: Mr. Chairman. I'd like to 8 suggest that in your discussion with the IRS if they have 9 a recommendation or if you learn that, perhaps, the 10 legislation could be modified, we may want to pursue a 11 support of a cleanup bill in order to resolve the issue.

12 CHAIRPERSON LLOYD: Good point.

13 Dr. Burke.

BOARD MEMBER BURKE: That is exactly what I was getting ready to say. And then in addition we may also want to contact the California delegation, Congressional delegation, and see if, in fact, there may not be a waiver for it under something that they can find.

19 CHAIRPERSON LLOYD: Professor Friedman.

BOARD MEMBER HUGH FRIEDMAN: I think we do have a responsibility to clarify the taxability of these grants or anything that's deemed taxable income and received by anyone who's acquiring one of these vehicles. I also think that while we're at it, we might want to consider that to the extent they're using them for business use or

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

92

other deductible purposes. I mean that could offset
 partially or entirely the tax consequences.

3 STAFF COUNSEL DAVIS: Yes. Although, you have, in fact, identified one of the problems in our attempting 4 to provide advice, and I'm not a tax attorney and I don't 5 play one at board meetings, and because each applicant's 6 tax picture will be different, we may not be able to give 7 8 conclusive advice. We can give general advice and repeat 9 what the IRS has told us once they tell us something. 10 BOARD MEMBER HUGH FRIEDMAN: Oh, no you can only 11 give the kind of general analysis or overview that is 12 given in, for example, in an investment prospectus, the 13 taxability of the investment. It's very general and it 14 always ends by saying consult your -- ultimately, it 15 depends on the particular individual. No question of 16 that.

17 STAFF COUNSEL DAVIS: And we will continue to do 18 that.

19 CHAIRPERSON LLOYD: Mr. McKinnon.

20 MR. MODISETTE: I should just add that the author 21 of the legislation, Assemblyman Alan Lowenthal, has also 22 offered the services of legislative counsel to work with 23 ARB legal staff to try to resolve the issue.

24 CHAIRPERSON LLOYD: Mr. McKinnon.

25 BOARD MEMBER McKINNON: Yeah. One of the things

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

93

1 that concerns me with the whole ZEV thing is when we get 2 into an uncertainty, uncertainty, you know, kind of 3 hinders the movement. And I guess I'm really inclined to 4 suggest that -- I don't know, you sponsored the 5 legislation, I take it. Do you have any strong objections 6 to kind of doing a legislative fix to it, you know, sooner 7 than later?

8 MR. MODISETTE: If this is, in fact, a way to get 9 around the, you know, the tax liability issue, then, no, I 10 don't have a problem at all, and I think that would be a 11 good thing to do. But when we drafted the legislation, it 12 actually wasn't clear to us that there wasn't a tax 13 implication even with the existing grant program. And we 14 actually thought, at that time, that what was happening 15 was that consumers didn't even realize that the State of 16 California or these air districts were offering incentives 17 at all.

They just, you know, they got the monthly lease price from the, you know, from the manufacturer. They had no idea that there was a \$5,000 contribution that was coming to them. And we thought well, gosh, wouldn't it be a more powerful incentive if we could actually send consumers a check for \$3,000 every year in each of the three years the leased a vehicle. Wouldn't that be a more powerful incentive for consumers, and maybe as a side

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

1 benefit actually put some downward price pressure on these
2 lease prices that are coming from automakers. So that was
3 the thinking at the time.

94

I think it does appear now with greater certainty
that the existing structure where consumers don't have a
choice does allow you to get around those tax
consequences. And if that's the case, then I guess we
would certainly support a change to the legislation.
CHAIRPERSON LLOYD: Professor Friedman.
BOARD MEMBER HUGH FRIEDMAN: Just as a follow up,

11 to the extent that we may be supporting efforts to see a 12 further subsidy in next year's budget, I think it is 13 important that we clarify how it should be structured to 14 minimize or eliminate any tax consequences that we don't 15 wish.

16 CHAIRPERSON LLOYD: Okay, very good point.
17 Thank you very much. We do have one additional
18 witness here, Tom Addison from the Bay Area AQMD.
19 MR. ADDISON: Good morning, Chairman Lloyd and

20 members. My name is Tom Addison. I'm with the Bay Area 21 Air Quality Management District. And I'm here today to 22 convey our support for the staff guidelines that are 23 before you for implementing AB 2061.

I think that your staff has worked well to come up with guidelines in a rapid time frame. And we needed

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

95

1 that, because the bill took effect not that long ago, and 2 so I think that your staff has done a very good job of 3 putting these guidelines together in a process of 4 consultation with all the affected parties, including 5 local districts like ours, and putting the guidelines 6 together rapidly.

7 We were supporters of this legislation last year.
8 We certainly appreciate the efforts of the previous
9 speaker, the \$18-million-dollar-man, Dave Modisette, who,
10 I think was influential in the good news to us all. And

11 I'd like to say that specifically on the guidelines that 12 your staff have put together, I think there are three 13 things that we agree with quite strongly that are in these 14 guidelines.

15 The first is the first-come first-served 16 allocation for the incentives, and that is, we thought, 17 implicit in the legislation. That's certainly implicit in 18 the guidelines and we think that's the right way to go and 19 we appreciate that direction.

The second is the use of the Manufacturers Suggested Retail Price for the incremental cost calculation. We think that is also the appropriate thing to do, and support the guidelines on that point.

24 We also think that the issue of allowing the 25 incentive money to flow through the manufacturer or

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

96

1 through the consumer, we hope that that helps with the tax
2 liability issue that you've just been discussing. We're
3 certainly hopeful that the issue will be resolved either
4 with a favorable IRS ruling or some sort of clean-up
5 legislation. But I think giving those two choices,
6 hopefully helps with that.

7 So in conclusion, we certainly agree there are 8 some open issues, but we think those open issues are not 9 with the guidelines that are before you. And we think 10 that the process that is being laid out here for

11 consultation with all the parties including local 12 districts, the Energy Commission and the manufacturers is a good one. And I'm here today to let you know that the 13 Bay Area Air District will be happy to work with your 14 15 staff in the upcoming months in putting together a program 16 that is as effective as it can be to try to get these 17 vehicles out there and into the hands of the public. 18 CHAIRPERSON LLOYD: Thank you very much, Tom. 19 Thank you for your support. 20 Any other comments from the Board, questions?

21 Mr. Kenny, do you have any further comments?
22 EXECUTIVE DIRECTOR KENNY: No.

23 CHAIRPERSON LLOYD: Since this is not a
24 regulatory item, it is not necessary to officially close
25 the record although we do have a resolution before the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

97

1	Board, so do I have a motion in favor.
2	BOARD MEMBER HUGH FRIEDMAN: So moved.
3	BOARD MEMBER DeSAULNIER: Second.
4	CHAIRPERSON LLOYD: All in favor say aye?
5	(Ayes.)
6	CHAIRPERSON LLOYD: Thank you very much.
7	Thank you.
8	We'll take a few minutes break before we move on
9	to the next agenda item, which is 00-12-3, Proposed
10	Amendments to the Certification Standard for Light- and

11 Medium-duty Vehicles.

12 (Thereupon a brief recess was taken.)

13 CHAIRPERSON LLOYD: Can we continue with the next 14 item.

Next item on today's agenda is 00-12-3, proposed amendments to the certification standards for light- and medium-duty vehicles and the alignment of California's heavy-duty gasoline standards with the more stringent federal standards.

20 We often boast in California that we are the 21 leaders of the pack, that no one has more health 22 protective standards in the entire world. Generally 23 speaking, that's absolutely true. But occasionally the 24 federal government gets just a tiny bit ahead of us on 25 certain regulations. When that happens, we need to catch

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

98

1 up quickly, so that the most protective standard will 2 apply. That is the purpose of today's agenda item. At this point, I'd like to turn it over to Mr. 3 4 Kenny to introduce the staff presentation. 5 EXECUTIVE DIRECTOR KENNY: Thank you, Mr. Chairman and Members of the Board. In 1998, the Board 6 adopted the second phase of the Low Emission Vehicle 7 8 Program, called LEV 2 to extend the original LEV program 9 through 2010 while expanding the benefits provided by the 10 program. This was accomplished by increasing the

11 stringency of the light- and medium-duty emission 12 standards and by further reducing the allowable average 13 emissions from each manufacturer's fleet for 2004 through 14 2010.

A noteworthy element of the program that contributes to its success is a requirement that the increasingly popular sport utility vehicles and pickup trucks be subject to the LEV 2 passenger car exhaust emission standards by the 2007 model year.

20 Subsequent to adoption of the LEV 2 program, ARB 21 assisted the US EPA staff in developing a similar program 22 for federal vehicles that would achieve significant 23 emission reductions for vehicles in other states. This 24 federal program is called the Tier 2 program.

25 While the federal Tier 2 program was modeled

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

99

after California's LEV 2 program, structural differences
 between the federal and California programs could, in some
 unusual circumstances, result in higher emitting vehicles
 being sold in California than some of the federal
 counterparts.

6 Today's staff proposal would change the LEV 2 7 regulations to say that a manufacturer may not certify a 8 California vehicle model to California standards that are 9 less stringent than its federal counterpart. We believe 10 that the proposal will ensure that California continues to 11 receive the cleanest cars and trucks in the world.

12 The second part of today's staff proposal, 13 reduces the emissions of ozone precursors from heavy-duty 14 auto cycle engines by 60 percent within the 2003/2008 15 timeframe. Heavy-duty auto cycle engines are used in 16 gasoline vehicles with a gross vehicle weight of over 17 14,000 pounds.

18 The emission reductions are achieved for these 19 engines by aligning California's exhaust emission 20 standards for hydrocarbon plus oxides of nitrogen, or HC 21 plus NOx, with those recently promulgated by the US EPA. 22 Reductions in HThat plus NOx from engines used in

23 medium-duty vehicles, between 8,500 and 14,000 pounds
24 gross vehicle weight, are similarly reduced.

25 What I'd like to now do is turn the presentation

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

100

1 over to Sarah Carter and we'll go from there.

2 Sarah.

3 (Thereupon an overhead presentation was

4 presented as follows.)

5 AIR RESOURCES ENGINEER CARTER: Thank you, Mike. 6 Good morning Chairman Lloyd and members of the Board. 7 Today I will be presenting staff's proposal for acquiring 8 certain federal Tier 2 vehicles to certify in California 9 and adoption of new federal exhaust emission standards for 10 heavy-duty gasoline engines.

11	000
12	AIR RESOURCES ENGINEER CARTER: In 1990, the Air
13	Resources Board adopted the low emission vehicle or, LEV 1
14	program, which significantly reduces exhaust emissions
15	from the light- and medium-duty vehicle fleet between 1994
16	and 2003. Both the LEV 1 regulations and the second phase
17	of these regulations, LEV 2, adopted in November 1998,
18	include three primary elements.
19	The first element consists of tiers of exhaust
20	emission standards for increasingly more stringent
21	categories of low emission vehicles.
22	The second is a mechanism requiring each
23	manufacturer to phase in a progressively cleaner mix of
24	vehicles from year to year with the option of credit
25	banking and trading.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

101

And the third is a requirement that a specified
percentage of passenger cars in light- or light-duty
trucks be ZEV's, vehicles with no emissions.
--000--

5 AIR RESOURCES ENGINEER CARTER: The LEV 2 program 6 continues to reduce emissions from the new vehicle fleet 7 between 2004 and 2010. A major focus of the LEV 2 program 8 is to reduce the emissions from the largest sport utility 9 vehicles and pickup trucks that are being used primarily 10 for personal transportation by requiring them to meet the 11 same emission standards as passenger cars.

12 LEV 2 also lowers the emission standards for all 13 vehicle categories.

14

--000--

AIR RESOURCES ENGINEER CARTER: These are the emission standards for passenger cars under LEV 2. The benefits of these new standards compared with LEV 1 range from 75 percent reduction in NOx emissions from passenger cars to a 90 percent reduction in NOx emissions from the largest sport utility vehicles and trucks. The LEV 2 program also establishes a near zero super ultra low emission vehicle or SULEV emission category.

23 The transitional low emission vehicle or TLEV 24 category is dropped for LEV 2. Elimination of the TLEV 25 category will likely preclude the use of diesels in

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

102

noncommercial vehicles in California for the foreseeable
 future.

3

--000--

4 AIR RESOURCES ENGINEER CARTER: While the LEV 2 5 program emphasizes NOx reductions, the nonmethane organic 6 gas, or NMOG, fleet average requirements also continue to 7 decrease. As a result, NMOG emissions from new light-duty 8 vehicles will be reduced by about half between 2003 and 9 2010.

10

--000--

11 AIR RESOURCES ENGINEER CARTER: Subsequent to the 12 adoption of the LEV 2 program, ARB staff assisted the US 13 EPA in developing a similar program for federal vehicles 14 that would achieve maximum emission reductions for 15 vehicles in other states.

ARB staff met with US EPA staff to review the engineering approach taken in our test program, provide them with emission test data, loan them experimental catalysts, and provide other assistance.

20 US EPA staff demonstrated that emission levels 21 adopted in LEV 2 could also be achieved cost effectively 22 on vehicles nationwide. The program that was subsequently 23 adopted by the US EPA is referred to as the Tier 2 24 program.

While Tier 2 is patterned after the LEV 2

25

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

103

program, it contains some unique features and program elements that differ from the California program. These include setting an NOx fleet average requirement rather than an NMOG fleet average requirement as in California. This was done primarily to allow diesel sport utility vehicles and pickup trucks to emit at higher emission levels than passenger vehicles so they could continue to be sold.

9 Tier 2 requires that their emissions be offset by 10 lower emissions from other vehicles. The need to offset 11 high diesel vehicle emissions may result in manufacturers 12 reducing the emissions from some federal Tier 2 vehicles 13 ahead of the schedule required by LEV 2.

Since diesels are not provided special standards In California manufacturers would not otherwise need to sell the cleaner vehicles here.

17

--000--

AIR RESOURCES ENGINEER CARTER: Other provisions of the federal Tier 2 program include a six-year phase-in of new evaporative emission standards between 2004 and 2009 versus a three-year phase-in between 2004 and 2006 of California's program. The California program also has more stringent evaporative standards including a zero evaporative emission provision. The Tier 2 program also does not contain a ZEV requirement.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

104

1 --000--2 AIR RESOURCES ENGINEER CARTER: Under the California LEV 2 program, both passenger cars and sport 3 4 utility vehicles are required to meet the same stringent 0.07 gram per mile NOx emission standard beginning in 5 2007. Under the Tier 2 program, the fleet average NOx 6 emissions from these vehicles would also have to be 0.07 7 8 gram per mile.

9 However, Tier 2 allows sport utility vehicles and 10 pickup trucks to certify as high as .2 grams per mile NOx 11 or about three times higher than in California. These 12 higher emissions must be offset by producing enough cars 13 at a much lower NOx level such that the manufacturers 14 federal fleet average NOx requirement of 0.07 grams per 15 mile is met.

16 What staff is proposing today is to take 17 advantage of any cleaner passenger cars produced under 18 Tier 2 and require them to be sold in California as well, 19 which means that California gets both the cleanest cars 20 and the cleanest sport utility vehicles and pickup trucks. 21 --o0o--22 AIR RESOURCES ENGINEER CARTER: Today's proposal

AIR RESOURCES ENGINEER CARTER: Today's proposal would change the LEV 2 regulations to require that beginning with the 2004 model year, a manufacturer may not certify a California vehicle to a less stringent standard

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

105

than its federal counterpart. Any such federal vehicles
 would also be required to comply with California
 evaporative, on-board diagnostic or OBD II, warranty and
 label requirements, all of which are more stringent than
 the federal requirements.

6 However, consistent with lead time requirements 7 of the federal Clean Air Act, which manufacturers are 8 subject to outside of California, the largest sport 9 utility vehicles and trucks would be allowed to comply 10 with the federal evaporative and OBD requirements prior to 11 2005.

12 --000--AIR RESOURCES ENGINEER CARTER: In cases where a 13 14 vehicle model is certified to federal emission standards 15 that are identical to California standards, the 16 manufacturer must certify that model to the California 17 emission standards. A federal vehicle model certified to 18 Tier 2 standards that do not correspond to a California 19 emission category would be counted as certified to the next highest California standard based on a comparison of 20 21 HThat plus NOx for the purpose of determining compliance 22 with NMOG fleet average requirements, calculating vehicle 23 emission credits and compliance with phase-in 24 requirements.

25

--000--

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

106

1 AIR RESOURCES ENGINEER CARTER: I will now discuss staff's proposal for heavy-duty auto cycle 2 engines. These are typically gasoline engines used in 3 4 vehicles over 8,500 pounds gross vehicle weight. 5 --000--6 AIR RESOURCES ENGINEER CARTER: On July 31st, 2000, the US EPA adopted new regulations to reduce 7 nonmethane hydrocarbon or NMHC and NOx emissions from 8 9 heavy-duty gasoline engines. 10 These regulations were developed through a

11 cooperative effort between ARB and US EPA as the result of 12 a 1994 settlement agreement with the environmental groups. 13 While current California regulations are more stringent 14 than the previous federal standard, California would also 15 benefit from the new requirements.

16 Staff is therefore proposing to harmonize 17 California's regulations with the more stringent emission 18 standards recently adopted for federally certified 19 engines. These new standards would apply to heavy-duty 20 gasoline engines used in vehicles greater than 8,500 21 pounds gross vehicle weight.

22 Staff's proposal would reduce NMHThat plus NOx 23 emissions from California heavy-duty gasoline engines by 24 about 60 percent. It will provide an NMHC plus NOx 25 emission benefit of one ton per day. The federal rule

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

107

also provides two other compliance options in addition to
 the primary one shown here. These compliance options
 allow a manufacturer to select the best approach for its
 product line.

5 Option 3 has been designated as the primary 6 standard at one gram per brake horsepower hour and 7 scheduled for introduction with the 2005 model year. 8 The other two options allow manufacturers to

9 delay compliance with the standard until the 2008 model 10 year by certifying to an interim emission level of 1.5 11 gram per brake horsepower hour prior to 2005. Staff is proposing adoption of all of these options to allow 12 13 manufacturers that chose to certify to Options 1 or 2 14 federally to do the same for California. 15 --000--16 AIR RESOURCES ENGINEER CARTER: To summarize, 17 staff's proposal will help achieve California's goal of clean air by ensuring that vehicles sold in California are 18 19 the cleanest available. This can be accomplished by 20 requiring that vehicles sold in California are at least as 21 clean as the federal Tier 2 counterparts and by aligning 22 California's exhaust emission standards of heavy-duty gasoline engines with the more stringent federal 23 24 standards. 25 The proposal will also help the ARB to meet its

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

108

commitment under the settlement agreement with the
 environmental groups.

3 For these reasons, staff recommends the Board 4 adopt the proposal including the 15-day changes available 5 at the back table.

6 Thank you.

7 CHAIRPERSON LLOYD: Thank you very much. Do I
8 understand from that that we get the best of all worlds as
9 to the lowest NOx and the lowest NMHThat

10 DEPUTY EXECUTIVE OFFICER CACKETTE: Yes.

11 CHAIRPERSON LLOYD: Madam Ombudsman, will you 12 please describe the public participation process that 13 occurred while this item was being developed and share any 14 concerns you may have on the process with the Board at 15 this time.

16 OMBUDSMAN TSHOGL: I'd be glad to. Mr. Chairman 17 and members of the Board, ARB staff held a workshop on 18 November 15th of this year to allow industry the 19 opportunity to comment on the proposed regulation before 20 you now. Notification of this workshop was sent to 500 21 people, of which 30 attended the meeting.

22 Staff felt that one workshop was sufficient, 23 since the proposed amendment, as you just heard, adopts 24 emission standards that automakers will be required to 25 meet nationally anyway. Staff incorporated many of the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

109

1	comments they received into the proposal. On October 10th
2	staff mailed the notice for the public hearing to 500
3	people. The staff report became available and was mailed
4	to 500 people on October 20th.
5	Thank you.
6	CHAIRPERSON LLOYD: Thank you. Do board members
7	have any questions, comments?
8	Mrs. Riordan?
9	BOARD MEMBER RIORDAN: Mr. Chairman, I will just

11 voice of support for the item, because it seems to me to
12 be a win-win for everybody here in California.

13 CHAIRPERSON LLOYD: Any other comments from the 14 Board?

Again, I think it's quite remarkable when we look at those numbers there to see how far we've come. And clearly while the industry may not like the push there, but their response out there, their ability to reach those extremely low numbers, is just remarkable when you look back with that progress in time.

So, Mr. Kenny, do you have any further comments?
EXECUTIVE DIRECTOR KENNY: No, I don't.

23 CHAIRPERSON LLOYD: I will now close the record 24 on this agenda item. However, the record will be reopened 25 when the 15-day notice of public availability is issued.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

110

Written or oral comments received after the hearing date
 but before the 15-day notice is issued will not be
 accepted as part of the official record on this agenda
 item.

5 When the record is reopened for a 15-day comment 6 period, the public may submit written comments on the 7 proposed changes, which will be considered and responded 8 to in the final Statement of Reasons for the Regulation. 9 By the way, we had nobody signed up to testify on 10 the item, that's why I skipped that part of it. 11 Just a reminder to board members, if there's any 12 ex parte discussions on the particular item? 13 Seeing none, we'll move ahead and I will -- if 14 the Board has reviewed the resolution. 15 BOARD MEMBER RIORDAN: I'd like to move the 16 resolution. Oh, excuse me, sorry. 17 BOARD MEMBER McKINNON: I'll be happy to move 18 resolution 00-45. 19 BOARD MEMBER RIORDAN: I'll second it. CHAIRPERSON LLOYD: All in favor say aye? 20 21 (Ayes.) CHAIRPERSON LLOYD: It's unanimous. 22 23 Well, thank you all very much and it brings us, 24 actually, faster than I thought to lunch. So we're going 25 to take a break now, for one hour, so at 1:00 o'clock we PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 111 1 will start back and begin the final item of the day, which 2 is the school bus item. EXECUTIVE DIRECTOR KENNY: We have a lot of 3 4 witnesses. 5 CHAIRPERSON LLOYD: Apparently we have a lot of 6 witnesses so it's going to be a long afternoon or evening. 7 (Thereupon a lunch break was taken.) 8 9 10

11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

1	AFTERNOON SESSION
2	CHAIRPERSON LLOYD: If people could take their
3	seats so we can start the afternoon, please.
4	The next item time on our agenda today is 00-12-2
5	proposed guidelines for the lower-emission school bus
6	program.
7	As everyone now knows, Governor Davis provides
8	\$50 million in ARB's 2000/2001 budget to replace older,
9	high-polluting school buses, with newer cleaner models and

10 to retrofit an additional segment of the existing school

11 bus fleet with particulate trap filters.

12 The \$50 million lower-emission school bus program 13 is consistent with the Governor's continuing emphasis on 14 education and on reducing health risks to school children. 15 The need for financial assistance in the area is 16 tremendous. And this is just a start of what we need to 17 do. Public schools clearly need the State's help to clean up their fleets or there wouldn't be so many old buses 18 19 still out there, actually about 6,000 to 6,600 pre-1987 20 school buses.

Fifty million dollars won't solve the entire problem either, but at least it's a good start and the initiative of the Governor is just tremendous. And, in fact, we appreciate very much his willingness to fund the effort. It's a really major step forward for all of us

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

113

and particularly for the children and their health. 1 I have some additional comments. I will save 2 those till later. Mr. Kenny, would you please begin the 3 4 presentation of this item to the Board. 5 EXECUTIVE DIRECTOR KENNY: Thank you, Mr. Chairman and members of the Board. There are two 6 components to the \$50 million lower-emission school bus 7 8 program. Staff has proposed \$40 million for the purchase 9 of new buses and infrastructure and \$10 million to put 10 particulate filters on older buses.

11 Under this program, we expect to replace about 12 400 high polluting pre-1987 buses and to put particulate 13 filters on about 1,500 older, in-use buses.

For the bus replacement part of the program, we are proposing that of the \$40 million allocated \$25 million be used for new alternative fuel buses and infrastructure and that \$15 million be used for lower-emission diesel buses. We heard from numerous school districts that they wanted a choice between diesel and alternative fuels. Staff's proposal gives them both options.

22 We also heard from school districts that 23 replacing pre-1977 buses should be a priority, since those 24 buses were manufactured prior to federal safety standards. 25 Staff's proposal requires that school districts that

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

114

receive funding must replace their pre-1977 buses first.
 Improved air quality, reduced exposure to toxic diesel
 particulates and safer school transportation would be the
 immediate results of this program.

5 The ten million dollars for school bus retrofits 6 is the first major step we are taking under the 7 comprehensive diesel risk management program the Board 8 adopted in September. This is an important opportunity to 9 move the Board's diesel retrofit objectives forward. The 10 element of the school bus program also accounts for the 11 largest reduction in particulate matter. It's extremely 12 cost effective.

13 The guidelines we are proposing to you today will 14 advance technology in several areas. First, it will 15 demonstrate the efficiency and durability of particulate 16 traps in California school buses. You will hear from 17 staff about the South Coast Air Quality Management 18 Districts and ARB's joint efforts to demonstrate 19 particulate filters on school buses and to test and 20 certify the systems. We have set a high standard for the 21 retrofits funded by this program.

22 Second, it will expand the use of low sulfur 23 diesel fuel. As you know, the US EPA has proposed to 24 require low sulfur diesel fuel nationwide beginning in 25 2006. School districts that elect to buy lower emission

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

115

diesel buses or to install the retrofit devices on their
 existing diesel fleet will get early benefits from using
 low sulfur diesel fuel.

I think the program is a win-win proposal for children's health, for California's schools and for air quality. And with that, I'd like to turn it over to Roberta Hughan to make the staff presentation.

8 Roberta.

9 (Thereupon an overhead presentation was10 presented as follows.)

AIR POLLUTION SPECIALIST HUGHAN: Good afternoon.

--000--

11

12

AIR POLLUTION SPECIALIST HUGHAN: Today's presentation will consist of, first, an introduction to the program, and a listing of the goals that are being recommended. Then I will go on to an overview of the program and a description of the two components of the staff proposal. Lastly, a discussion of issues that have been identified will be followed by staff conclusions and recommendations.

21 --o0o-22 AIR POLLUTION SPECIALIST HUGHAN: First, the
23 introduction and the goals recommended for the program.
24 Last year, Governor Davis provided \$50 million in the

25 State budget to reduce emissions from diesel school buses.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

116

1 This is consistent with his efforts to improve education 2 in California and reduce health risks for students, 3 including these funds in the fiscal year 2000/2001 State 4 budget. This was supported by environmental and health 5 organizations, school district organizations, State 6 legislators and many others. 7 ARB's staff developed the proposed guidelines. 8 We are presenting them to you today for your

9 consideration. The staff's goal is to put together a very

10 positive balanced program that will provide emission

11 benefits, reduce toxic exposure and provide safer school 12 transportation. We propose doing that by funding the 13 purchase of new, cleaner, safer buses and cleaning up 14 in-use buses.

In an effort to do that right, we have consulted with numerous stakeholders, primarily school districts, and we have benefited significantly from insight into the funding and operation of school districts' transportation services. We also consulted with environmental groups, engine, bus and retrofit device manufacturers and other interested parties.

22

--000--

AIR POLLUTION SPECIALIST HUGHAN: A number of goals for the school bus program were identified. The first one is to benefit children's health. That can be

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

117

1 done in two ways. First, by reducing the criteria of 2 pollutants, oxides of nitrogen or NOx and particulate 3 matter or PM. This would improve the quality of the 4 ambient area that children breathe.

5 Second, reduction of PM would reduce children's 6 exposure to localized toxic diesel particulates when 7 they're waiting for or riding the bus. The goal of 8 providing safer school transportation can be accomplished 9 by replacing old buses with new buses meeting current 10 safety standards. In 1998, the ARB identified diesel engine particulates as a toxic air contaminant. Last September the Board adopted the ARB's Risk Reduction Plan for diesel fueled engines and vehicles. The plan calls for the PM retrofit of all diesel engines technically feasible by 2010. This includes school buses. So our goal is to make this proposal consistent with that plan.

Also, engine and retrofit technology can be advanced by accelerating development of PM retrofit devices meeting stringent reduction standards and by furthering development of diesel engines that meet NOx and PM standards lower than ARB mandatory requirements.

AIR POLLUTION SPECIALIST HUGHAN: Bottom line, 25 the goal is to get school buses like this either off the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

118

1 road or retrofitted with smoke filters.

2

10

--000--

AIR POLLUTION SPECIALIST HUGHAN: The ARB staff is proposing that the \$50 million for the program be used to fund two components, \$40 million would be used to fund part one, the Lower Emission School Bus Replacement and Infrastructure Program. Ten million dollars would be used to fund part two, the School Bus Particulate Matter Retrofit Program.

--000--

AIR POLLUTION SPECIALIST HUGHAN: The California Energy Commission or That would administer the new bus program with oversight by ARB. With the concurrence of the That some larger air districts could administer the program in their geographic areas. Funding awards would be made through a noncompetitive process based on applications submitted by school districts.

18 The PM retrofit program would be administered by 19 those air districts that choose to participate, again, 20 with oversight by ARB. This would also be a 21 noncompetitive award process. A schedule for expenditures 22 of these funds has been set. After guidelines are 23 approved, the application forms would go out to the school 24 districts, the amount of awards determined and orders for 25 buses and retrofit devices would be placed. We want to

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

119

1 get the cleaner buses on the road as soon as possible. --000--2 3 AIR POLLUTION SPECIALIST HUGHAN: First, I will 4 describe Part 1, the proposed School Bus Replacement and Infrastructure Program. 5 6 --000--7 AIR POLLUTION SPECIALIST HUGHAN: There are over 8 24,000 school buses of all types operating in California. 9 About 6,600 are pre-1987 model buses, including about 10 1,900 pre-1977 buses. All pre-1987 buses were

11 manufactured before more stringent NOx engine standards 12 went into effect and before any PM standards were in 13 place. In addition, the school districts place a high 14 priority on replacement of pre-1977 buses as they were 15 built before federal safety standards went into effect.

Lower emitting buses are now available and school districts are eager to get buses that are both cleaner and safer. However, school transportation services must be subsidized by school district general funds. Those services must compete for both capital and operating costs with mandated school districts services.

There are a few grant programs that are helping out the school districts with some new buses. They include the Small School Districts Program administered by the California Department of Education that funds 25 to 50

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

120

buses a year. As well, some school districts have secured
 air quality incentive funds from local air districts
 through a competitive program. Primarily the air
 districts pay the incremental cost of alternative fuel
 buses.

6 Unfortunately, this is not adequate co-funding 7 for many school districts. Additional funds are needed to 8 retire the old buses and Governor Davis has provided some 9 of those funds.

10

--000--

AIR POLLUTION SPECIALIST HUGHAN: ARB staff is proposing that specific amounts of funding be allocated to ten geographic areas. These amounts would be fixed, regardless of whether the That or an area air district administered the funds. The remaining monies would be put in a pool by the That for distribution throughout the rest of the State.

In the proposal to get a new bus, the school districts would have to contribute 25 percent of the cost of a new bus with a maximum of \$25,000. This would make the money go further. School districts could use local air district funds or other local grant funds, if available, to help pay the school district's share. Assuming that most school districts will want full-size buses, staff estimates that about 400 buses

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

121

1 could be funded with the \$40 million.

2

10

--000--

3 AIR POLLUTION SPECIALIST HUGHAN: You can see 4 here the amounts allocated to the school districts within 5 the geographic areas of the ten largest air districts 6 based on population. There is almost \$3 million in the 7 pool for the remaining districts. The number of buses is 8 based on an average contribution of \$100,000 per bus, 9 including infrastructure.

--000--

11 AIR POLLUTION SPECIALIST HUGHAN: Criteria for 12 the program is proposed. Only public schools and groups 13 of school districts that form coalitions through Joint 14 Powers Agreements, JPA's, would be eligible to receive 15 these funds.

16 School districts could apply for funding for any 17 buses that have heavy-duty engines. The buses could 18 operate on any fuel except gasoline, if the engine meets 19 the Applicable emission standards. Both the NOx and PM 20 standards set for the new buses are lower than current 21 mandatory standards.

Alternative fuel buses would have to certify to two and a half grams per brake horsepower hour NOx and .03 grams PM. Diesel engines would have to certify to three grams NOx and .01 grams PM.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

122

School districts would be required to retire a 1 pre-1987 diesel or gasoline bus for each new bus received. 2 Any pre-1977 diesel buses in a given fleet would have to 3 be replaced first. Those buses would have to be crushed. 4 Retired 1977 to '86 model year buses would have to be 5 crushed or replace an older bus in a California fleet. 6 7 --000--AIR POLLUTION SPECIALIST HUGHAN: There is \$40 8 9 million recommended for new bus purchases. In the 10 proposal, \$25 million has been designated for the purchase of lower emission alternative fuel buses, natural gas, propane, electric and others. Natural gas and propane engines are already certified to ARB's optional two and a half gram NOx standard or lower.

PM emissions are low for the life of the buses. Electric buses have inherently low emissions. Up to two and a half million or ten percent could be used for infrastructure, fueling or charging stations for alternative fuel buses.

The school districts would have to demonstrate a need for any new infrastructure. It is proposed that \$15 million go to purchase lower emission diesel buses. As yet, no diesel engines have been certified to the proposed three gram NOx federal remission limit. One manufacturer, who offers what they call a green diesel school bus,

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

123

1 states its diesel engines could certify the intermediate level. Low sulfur diesel fuel would be a requirement. 2 Both types of engines emit about the same level of PM. 3 4 --000--5 AIR POLLUTION SPECIALIST HUGHAN: Staff did a comparative analysis. CNG buses cost more than diesel 6 buses. Per dollar spent more diesel buses can be 7 8 purchased, as you can see on the chart. The chart shows 9 the relative emission benefits of natural gas buses and 10 diesel buses based on certification levels. So you can

see that more reductions of NOx and particulates would occur if both the lower emission alternative and diesel fuel buses were permitted into the program.

14 School districts have expressed a preference for 15 a choice of fuels. Some districts are committed to CNG. 16 Other districts, particularly where using natural gas is 17 problematic, have requested the flexibility to choose 18 diesel buses to meet their needs.

19 ---00---

AIR POLLUTION SPECIALIST HUGHAN: The ARB staff estimates that the proposed school bus replacement program would reduce NOx emissions by 1010 tons and PM emissions by the 90 tons in the years 2001 to 2016. The estimate is based on the ARBs emission inventory, MFACT 2000 and assumes the bus travels 225,000 miles in its lifetime.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

124

1 --000--2 AIR POLLUTION SPECIALIST HUGHAN: That concludes the description of part one of the \$40 million new bus 3 4 program. 5 Now we will move on to Part 2, the description of the proposed \$10 million school bus PM retrofit program. 6 7 --000--AIR POLLUTION SPECIALIST HUGHAN: In September, 8 9 the Board approved a plan to reduce exposure to diesel 10 particulate emissions. A key to the plan is the retrofit

11 of heavy-duty diesel fleets in California with particulate 12 filtering devices. The proposal supports that effort.

Diesel particulate filters are easily installed, off-the-shelf technology, generally designed as a muffler replacement for an in-line catalytic converter. The filters provide immediate and cost-effective emission reductions, cutting exhaust particulates by 85 percent or more.

By providing funds for retrofits, the program can achieve substantially greater PM reduction than a program that funds only new bus purchases. The filters have proven successful in numerous applications, particularly in Europe, and the increased availability of low sulfur diesel fuel in California provides an opportunity for widespread use here as well.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

125

The transit bus regulation, adopted by the Board 1 in February, requires particulate filter installation in 2 many diesel transit bus fleets by the end of 2002. 3 4 --000--5 AIR POLLUTION SPECIALIST HUGHAN: Staff is 6 working with several manufacturers who have applied for ARB certification of diesel particulate filters. 7 The 8 certification process requires an 85 percent conversion 9 efficiency. It also requires a complete demonstration of 10 durability and effectiveness. It requires manufacturers

11 to warrant their retrofit devices for 150,000 miles for 12 emission effectiveness and for 100,000 miles for 13 mechanical performance.

ARB staff is confident that PM filters will 14 15 provide significant reductions while remaining durable and 16 effective. The process will be completed before funds are 17 expended under the program. Also underway is a cooperative effort between ARB, the South Coast Air 18 19 District and several school districts to validate the long-term durability and effectiveness of the filters in 20 21 various school bus applications. That demonstration 22 program is now ongoing in the Los Angeles region and is 23 expected to be completed by mid-2001.

24 ---000---

25 AIR POLLUTION SPECIALIST HUGHAN: The proposed PM

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

126

retrofit program would use \$10 dollars to purchase and
 install particulate filters in about 1,500 in-use school
 busses. This includes contributing money for the
 incremental cost of low sulfur diesel fuel, estimated at
 .5 cents per gallon for five years. No school district
 match would be required for the retrofit program.

7 The air districts would apply to ARB for funding. 8 Staff proposes that funds be allocated by population. The 9 five largest air districts would received fixed 10 allocations. Because funds are limited, staff proposes 11 that remaining funds be pooled. The total funds available to a district in the pool would depend on the number of 12 13 districts applying for funds.

14

--000--15 AIR POLLUTION SPECIALIST HUGHAN: You can see 16 here the amounts allocated to the five largest air 17 districts based on population. There is about one and a 18 half million in the pool for the remaining districts. The 19 number of buses shown retrofitted is based on about \$6,000 20 per retrofit, plus \$500 towards the incremental cost of 21 low sulfur diesel fuel. 22 --000--23 AIR POLLUTION SPECIALIST HUGHAN: Staff proposes

24 broad eligibility guidelines for the retrofit program. 25 California public school districts and Joint Powers

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

127

1 Authorities would be eligible. Private contractors that 2 provide transportation for public schools would also be 3 eligible for the retrofit program. To help ensure cost 4 effectiveness and availability of manufacturers' support and training, we propose the program focus initially on 5 larger fleets. 6

7 And we're working with the air districts to 8 assure that. All 1977 and newer model year in-use diesel 9 powered buses qualify for retrofits provided there is a 10 certified retrofit device available for each engine.

Finally, it's critical that retrofitted buses use only low sulfur diesel fuel. In fact, we would like all buses in a yard with retrofitted buses to use low sulfur fuel to avoid potential misfueling that could result in filter damage. We note that even buses that are not retrofitted will emit less PM when run on low sulfur diesel fuel.

--000--

19AIR POLLUTION SPECIALIST HUGHAN: Staff estimates20that the retrofit program will eliminate 113 tons of21particulates from school bus exhaust over the next ten22years benefiting school children, bus drivers, teachers23and the neighbors where these 1,500 buses operate.24Public health will also benefit from reductions25in reactive organic gases and carbon monoxide. Some of

18

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

128

1 the devices have the potential to reduce NOx as well, reducing formation of ozone and PM 10 in urban areas. 2 --000--3 4 AIR POLLUTION SPECIALIST HUGHAN: In our work with stakeholders several issues were identified. 5 6 --000--7 AIR POLLUTION SPECIALIST HUGHAN: Including 8 diesel buses in the program was discussed earlier. 9 However, that issue needs to be listed here as well. To 10 reiterate, the school districts requested a choice of

11 fuels. You saw the chart comparing the benefits dollar 12 for dollar of including both diesel and alternative fuel 13 buses in the program. And that showed that including 14 diesel buses means more buses purchased and greater NOx 15 and PM reductions.

16 There's another aspect to that debate. The South 17 Coast Air District Board has adopted a series of fleet 18 rules that require public agencies to purchase, primarily, 19 alternative fuel vehicles. A school bus rule has not been 20 adopted but is currently being workshopped. Some South 21 Coast representatives have expressed interest in using 22 their full new bus allocation to fund only alternative 23 fuel school buses.

24 If this is allowed, the That would work with 25 other stakeholders to ensure the proposed diesel

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

129

1 alternative fuel funding split is maintained statewide. --000--2 3 AIR POLLUTION SPECIALIST HUGHAN: On the funding allocation issue, many school districts have told us they 4 would prefer the allocations to the geographic areas or in 5 the pool to be based solely or partially on the number of 6 pre-1977 buses in these areas. Staff is proposing that 7 8 the allocation be based on population. There are equity 9 issues here. 10 Most of the money would go to those areas where

11 these funds are raised. Also, if the allocations were not 12 based on population, those school districts that have used 13 their own funds or excess grant funds to replace their 14 oldest buses, would lose out.

As well, many school districts have told us they would prefer that only pre-1977 buses be eligible for replacement. That is because there were no federal safety standards prior to 1977. The proposal does require that pre-1977 buses, in any given fleet, be retired first.

20 --000--

AIR POLLUTION SPECIALIST HUGHAN: Staff is proposing eligible replacement buses include all pre-1987 buses. That's because prior to 1987, PM emissions were not controlled. There were no PM engine emission standards in effect. Also, prior to 1987, NOx emission

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

130

1 standards were less stringent, so pre-1977 and 1977 to 2 1986 model year engines are equally dirty. 3 ------4 AIR POLLUTION SPECIALIST HUGHAN: The staff is proposing a 25 percent with a maximum of \$25,000 match 5 funding requirement for the school districts for the 6 purchase of new buses. During guideline development, some 7 school districts opposed the requirement. However, 8 9 program funding is limited. Requests for funds will 10 certainly far exceed availability. A required funding

11 match means more buses could be purchased and air quality 12 benefits increased.

ARB staff believes that the proposed 75 percent funding level up to about \$100,000 per bus plus CNG fueling infrastructure will assure full school district participation.

17 School districts are encouraged to try to secure 18 match funding from other sources such as local air 19 district's funds and federal grant funds. Another issue 20 is the cost of low sulfur diesel fuel. This is required 21 to assure the effectiveness and durability of Green Diesel 22 engines and PM retrofit devices. ARB staff estimates that 23 the incremental cost to produce the fuel is three to five 24 cents a gallon, and proposes to contribute \$500 per 25 retrofitted bus.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

131

1 This would pay for up to five years of 2 incremental fuel costs. However, in rural areas or with 3 small volume orders, the retail cost could be more. 4 School districts are advised to verify that cost with 5 their fuel suppliers. It may be possible for them to form 6 consortiums with other school districts, transit agencies 7 or other agencies in order to get volume prices. 8 --o0o--9 AIR POLLUTION SPECIALIST HUGHAN: And last

10 staff's conclusions and recommendations. ARB staff

11 believes that the program is outlined and the proposed 12 guidelines would have a number of beneficial results. By 13 both replacing old buses and cleaning up in-use buses, a 14 balance has been achieved.

--000--

15

16 AIR POLLUTION SPECIALIST HUGHAN: First, 17 children's health would benefit. By reducing NOx and PM, 18 ambient air quality would improve, smog would be reduced. 19 Second, children would be less exposed to toxic diesel 20 exhaust. Air pollution has been linked to a range of 21 serious health problems. Children, with their growing 22 lungs and faster respiratory rates, are particularly 23 affected.

Second, safer school transportation would result.The new school buses would meet more stringent safety

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

132

standards than older buses. Additionally, technology would be advanced through the accelerated development of highly effective particulate filters and the early development of lower emission diesel engines. This is an encouraging beginning. Still there are many more old buses to be replaced. A successful and timely program will get us off to a good start.

9 AIR POLLUTION SPECIALIST HUGHAN: Under staff's 10 proposal, this is one of the new shiny clean buses that

11 would be eligible for funding. This is a natural gas bus. There about 700 of these buses in use in California. No 12 13 smoke here, plus NOx reductions. 14 --000--15 AIR POLLUTION SPECIALIST HUGHAN: And this is a 16 demonstration of a Green Diesel school bus, that would be 17 eligible for funding upon certification. No smoke here either, plus NOx reductions. 18 19 --000--20 AIR POLLUTION SPECIALIST HUGHAN: Finally, the staff recommends approval of the proposed lower emission 21 school bus program guidelines. 22 23 Thank you. 24 CHAIRPERSON LLOYD: Thank you. Do the Board 25 members have any questions? PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 133 Supervisor DeSaulnier. 1 2 BOARD MEMBER DeSAULNIER: I thought Matt was going to get the floor ahead of me. Mike or Roberta, what 3 4 was the magic of the money split? Is there a magic to Solomon's wisdom here in terms of 25/15? 5 EXECUTIVE DIRECTOR KENNY: I think the real 6 magic -- I wouldn't say -- I'd say there is not a magic to 7 the split, but there is essentially a rationale to it. 8 9 What we were trying to do is recognize a number of issues. 10 One was the fact that we did have a limited pool of money.

11 And consequently, with a limited pool of money, we could 12 not address the entire 24,000 school bus fleet in the 13 State.

And so we were trying to figure out how we could maximize the value to the school districts, to the environmental benefit, to safety, to advancements in technology and to commingled sulfur diesel fuel into the market place.

19 The thought was essentially that we need to 20 ensure that, in fact, we continue the competition between 21 all the technologies, the CNG, the clean diesel and the 22 traps. And so we wanted to essentially spread money 23 across all three categories. We were also trying to do it 24 in a way in which the emissions benefits could be 25 maximized.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

134

And we thought essentially by going with the pool of \$25 million for CNG and then another \$25 million pool for diesel as a total, we had a split there and we created the competition between the technologies.

5 We then subdivided the diesel pool into two with 6 the new buses and with the retrofit buses. And the idea 7 there was essentially to ensure that, in fact, we continue 8 to pool the new diesel technology forward and that we also 9 have sufficient money available to put money into traps, 10 because we do see significant advantages both from a 11 technology advancement standpoint and also from a health 12 standpoint in terms of the emission reductions that traps 13 give you.

14 So the rationale was to essentially try to split 15 it up evenly, to split it up fairly, to provide 16 competition among the different fuels, to try to continue 17 the development of the technologies, to pull the low 18 sulfur diesel fuel in and to put as many new buses on the 19 streets as we possibly could.

20 BOARD MEMBER DeSAULNIER: In terms of the, 21 particularly, the NOx standards, I mean do you view that 22 as truly being fuel neutral?

23 EXECUTIVE DIRECTOR KENNY: Yes. And the main 24 reason we consider that is that if you look at the two --25 looking at the new bus side, the CNG actually has a lower

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

135

1 NOx standard. It has a 2.5 grams per brake horsepower hour and the clean diesel has a three gram standard. At 2 the same time, what we were trying to do is look at the 3 4 context of everything, of the overall smog benefits that we would get. We do get more diesel buses than we would 5 get CNG buses. And so consequently, because we get more 6 diesel buses, even though we have a little dirtier 7 8 standard, and what ends up happening is that the overall 9 benefit is actually better, really, if you go on to the 10 combination of diesels with the retrofits. At the same

11 time, what we were trying to do is look a the PM side.
12 The PM, the ThatNG is not essentially meeting the same
13 level of standard as the diesels are meeting. And we are
14 trying to look at the practice from a balanced standpoint,
15 where there's both a NOx benefit and there is a PM benefit
16 and we want to maximize both those benefits.

17 BOARD MEMBER DeSAULNIER: And I'll play a little 18 bit unfair here. Hypothetically, if you had more than one 19 year, say if you had multiple years, would this look any 20 different, do you think?

21 EXECUTIVE DIRECTOR KENNY: I think it potentially 22 does. I mean, I think one of the things that we're 23 looking at right now is a very interesting situation in 24 which we are in a one-year scenario. We are going to see 25 cleaner diesel engines really in about 18 months that are

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

136

down in the two and a half gram levels or lower
potentially. And so I think then what ends up happening,
potentially is that we look at setting one standard that
reflects both low NOx and low PM.
Right now the difficulty for us is that one of
the technologies has the lower NOx number, the other
technology has the lower PM number and we are trying to
balance that.

9 BOARD MEMBER DeSAULNIER: And just one last10 question. Mike, when we did the duel path transit bus

11 rule, that I had Hamlet-like reservations about, it was 12 always my assumption that the clean diesel would be more 13 towards the truck fleet and we would be moving in the 14 fleet, particularly the transit fleet, which we would be 15 trying to get more incentives for alternative fuels. 16 Would you explain, to me at least, sort of how

17 we're evolving from that?

EXECUTIVE OFFICER KENNY: What we were trying to do is recognize that the technology has been advancing fairly rapidly on the diesel side and we think that is advantageous. And the main reason for that is what happens is that we can take that technology as it evolves and we can essentially transfer across the entire diesel fleet.

25 We do recognize the benefits of CNG, which is why

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

137

1 here what we tried to do is essentially give it the 2 largest portion of the pie, if you looked at it in terms 3 of three segments. And we thought that was actually 4 valuable in terms of continuing the incentives and getting 5 the buses out there that are CNG. We were also, though, 6 taking into account the fact that from an emission 7 reductions standpoint, we got a better emissions reduction 8 return by having the clean diesel vehicles out there, 9 because they were cheaper to purchase and then using the 10 retrofits.

BOARD MEMBER DeSAULNIER: I'm sorry. I have one last question, Mr. Chairman. I promise this is the last 12 13 one. I won't kiss any babies after that either.

14 (Laughter.)

15 BOARD MEMBER DeSAULNIER: But just in terms of, 16 we've talked about it before and maybe I'm a little overly 17 sensitive to it, but the potential capacity of problems for product, and always a challenge for request for 18 19 variances. I mean, how does that play in here? It seems like there's going to be plenty of market for car 20 21 certified clean diesel fuel in the future, and we're 22 trying to add more, as we talked about in the ZEV mandate. 23 It seems like, in my mind, that gives us more of a motivation to try to create more alt fuels vehicles out 24 25 there in general in the whole fleet.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

138

What I'm getting at is, and I'm a little bit 1 surprised by the vehemence by some of the -- well, for 2 instance from WSPA. That in my mind, at least, there 3 4 seems like there's a big market for clean diesel out there and there will continue to be. As we look at trucks in 5 particular, that's where that market will continue to 6 7 grow.

So if that's true, isn't there some motivation, 8 9 particularly from the That maybe I'm trying to be an 10 Energy Commissioner, to promote alternative fuels in this

11

11 instance rather than clean diesel?

EXECUTIVE DIRECTOR KENNY: I think the answer would be yes. And I think the "tried to do" is that we have basically tried to make it fairly clear that the largest portion of the pie was a CNG portion. We were trying to essentially promote the CNGs out there.

The difficulty that we were running into is that from an emissions benefit standpoint, we don't get the same level of health protection if we were to put the greatest chunk of the money into CNG. And so what we were trying to do is balance that desire to provide for diversity of fuels, with the equally important desire of essentially reducing the health benefit that the kids are suffering.

25 And so the combination was, essentially, in a

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

139

1 way, kind of our way of splitting the baby up in a way that gave us kind of the best return, we thought, on the 2 number of buses, the fuel and the fuel diversity issues. 3 4 BOARD MEMBER DeSAULNIER: Thank you, King 5 Solomon. 6 (Laughter.) 7 CHAIRPERSON LLOYD: Before you actually bestow that on him, I would like a correction --8 9 (Laughter.) BOARD MEMBER DeSAULNIER: I don't know if I have 10

11 that authority.

12 (Laughter.)

13 CHAIRPERSON LLOYD: I think King Solomon got a 14 slight of hand. I do not understand why you said natural 15 gas has got the lion's share, when, in fact, I think we're 16 50/50, but maybe that's a lawyers definition. I'm looking 17 at a scientists definition.

EXECUTIVE DIRECTOR KENNY: Actually, you are correct. It is a 50/50 split in terms of the total pool, but what I was actually referring to was if you look at the new vehicle pool, what we did there to the pool is larger for CNG.

23 BOARD MEMBER DeSAULNIER: That's what my emphasis
24 was on.

25 CHAIRPERSON LLOYD: Professor Friedman.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

140

Wait a minute, maybe Mr. McKinnon will second
 this.

BOARD MEMBER McKINNON: Yeah, King Solomon, I came at it from a very different perspective. I mean, I started out thinking we ought to do a lot of retrofit and try to affect as many kids as possible when we did it.

7 And I also understand, you know, a lot of the 8 other factors. I mean, we are trying to move cleaning up 9 diesel. And so I appreciate the difficulty in doing the 10 split. I think from my perspective, it probably came out 11 stronger for ThatNG than I would like. So part of what 12 you were dealing with is a board that has different ideas 13 here about how it ought to be done.

But I'm going to set that aside, because there's a whole bunch of people I'm sure that have ideas that we should hear about that issue.

17 One thing I'm kind of interested in is that once the split is done, say for instance retrofit, if we do 18 19 retrofit carefully, such as we're doing right now, we have some of the large districts working with retrofit, and we 20 21 figure out the configurations of the buses and make sure that there's kind of an efficient setup to do retrofit, 22 rather than kind of just handing everybody money and 23 saying go give it a try. It may take us some time. 24 25 And let's say, for example, it takes us a good

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

141

1 bit of time to get that done, and in the meantime we are fortunate enough to get another year, another two years or 2 3 whatever allocated to doing this project, can we, after 4 the fact, move around this money? For instance, if retrofit money is not getting spent, then can we shift 5 money to CNG or shift money to new diesel and take care of 6 7 the retrofit next year or something like that? EXECUTIVE DIRECTOR KENNY: Actually, right now 8 9 it's not set up that way. It is set up essentially as

10 kind of three pots. What we would do is if we ran into

11 that particular circumstance, we would bring it back 12 before you.

BOARD MEMBER McKINNON: That's it. Thanks. 13 CHAIRPERSON LLOYD: Professor Friedman. 14 15 BOARD MEMBER HUGH FRIEDMAN: I just want to ask 16 some questions and get answers. I'll save my comments 17 until I've heard all the testimony. But I do have a few questions that I'd appreciate staff clarification on. 18 19 First of all, just picking up from Mr. McKinnon, at least one piece of correspondence indicated the 20 understanding that the traps are not now available and 21 won't be until 2002 or later. Is that true, that is the 22 particular traps are not available and therefore the money 23 ought to go for something else now. 24

25 DEPUTY EXECUTIVE OFFICER CACKETTE: No, I think

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

142

1 the traps are available now. We're putting them on 2 demonstration school buses right at this time. They are 3 not a development product, but they are not a product that 4 has, you know, widespread commercial experience yet. So 5 there is, you know, some difference in time here, but the 6 basic product is available and we think that particularly 7 when we finish the demonstration program, that they'll be 8 available in mass in 2001.

9 BOARD MEMBER HUGH FRIEDMAN: Okay. Another10 question is is there anything in the enabling legislation

11 that provides the pool of money that limits us to 12 replacement buses as opposed to allocating some of it for 13 retrofits. There's a number of pieces of correspondence 14 which seem to indicate the assumption, and if it's a 15 misapprehension, I'd like to know it, that we really can't 16 retrofit. What we've got to do is replace, that was the 17 Governor's intent if that's how they understood it.

18 GENERAL COUNSEL WALSH: No. We do not believe 19 that the language that created the program would limit us 20 to replacements, that we can do the retrofit program.

BOARD MEMBER HUGH FRIEDMAN: And alternative fuels includes cleaner diesel as opposed to -- the alternative being what we now have, is that right, or is the only definition or meaning of alternative something other than gasoline and diesel.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

143

EXECUTIVE DIRECTOR KENNY: Well, I think 1 historically, when people have talked about alternative 2 fuels, they have been looking at essentially propane, CNG, 3 4 liquid propane, things like that. 5 BOARD MEMBER HUGH FRIEDMAN: So, again, is there anything that limits allocating funds to something other 6 7 than natural gas or liquid propane? EXECUTIVE DIRECTOR KENNY: We don't believe so. 8 9 GENERAL COUNSEL WALSH: No. BOARD MEMBER HUGH FRIEDMAN: I assumed that 10

11 that's why you made the proposal, but I wanted to clarify, 12 because I see a lot of that raised in the literature.

13 The allocation gives priority to replacing pre-77 14 units, because they are the most polluting, although, 15 apparently, the pre-87 are equally polluting, but you 16 begin with the oldest and then work up.

Is it the case that particularly in rural areas, Is it the case that particularly in rural areas, that there are a lot of older buses that would need replacing where they don't have the infrastructure, and it wouldn't be economically feasible to establish infrastructure for CNG or for -- at least for CNG. EXECUTIVE DIRECTOR KENNY: There are school

23 districts that are like that and they may have very small 24 numbers of buses. They may even be single bus fleets. 25 And they do not believe that it would be economically

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

144

1 feasible for them to go to the CNG because of the infrastructure costs, and so they are the types of 2 3 districts that have actually been at least mentioning very 4 specifically that they would prefer to have the option. 5 BOARD MEMBER HUGH FRIEDMAN: Arguing for the diesel, the dual path. 6 7 EXECUTIVE DIRECTOR KENNY: Yes. BOARD MEMBER HUGH FRIEDMAN: Has Green Diesel 8 9 even been certified? EXECUTIVE DIRECTOR KENNY: The bus itself has not 10

11 yet been certified. And in fact, what we are asking the 12 Board to do is look at the three gram NOx .01 gram PM and 13 establish that as a standard. And if the bus was not 14 certified to meet those numbers, then it could not receive 15 any funding.

16 BOARD MEMBER HUGH FRIEDMAN: And how about in-use 17 as opposed to certification. I guess there is some 18 information to support the argument that certified 19 standards aren't in-use standards.

20 DEPUTY EXECUTIVE OFFICER CACKETTE: Well, in the 21 case with the particulate filter on the bus, we've 22 actually tested it on many other in-use cycles or tested 23 the whole bus rather than just the engine. And it 24 maintains its performance pretty much regardless of the 25 way it's driven. So in-use we expect it to be similar

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

145

reductions to what we see from the certification values.
And we also don't expect that there will be any
in-use problems, like failures. If there is a failure, I
think you'd be able to know it right away from the back
pressure or lack thereof on the trap.

6 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: I 7 might add that fuel -- in-use deterioration is not a fuel 8 issue. In other words, it's an engine issue, so it's 9 going to happen whether it's a natural gas bus or a diesel 10 bus. I think the filters of the kinds of devices you 11 could put on an engine to clean them up, the filters, are 12 one of the more reliable ones, if you will, in terms of 13 being able to identify a problem with it.

BOARD MEMBER HUGH FRIEDMAN: Do we know yet the extent to which there are any significant differences in the toxicity, the elements that make it toxic, or the degree of toxicity in the emissions comparatively with natural gas and with the new Green Diesel?

EXECUTIVE DIRECTOR KENNY: Actually what we have been doing is using PM as basically a surrogate for the toxicity. And as we reduce the PM, we presume that, in fact, we are reducing the toxicity. When we are looking at these two fuels in the two buses, we are then looking at the PM numbers and using those PM numbers as, kind of, a surrogate for what kind of toxic numbers we're getting

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

146

1 out of these particular buses.

We believe that, in fact, that's a reasonable way to go about it, and we believe that when you look at a .03 on the CNG and a .01 on the diesel, that we are reducing the toxicity levels down to low levels.

Actually, one other question -- actually, one other answer, I guess, I'd like to ask is -- or I'd like to answer in addition was, Mr. Cackette just informed me that as we look basically back at how the money may be distributed, if, in fact, there was any undistributed 11 money, is essentially the proposal does have it as a 12 reallocation by staff, that I think what we would prefer 13 to do in that situation is bring it back to you.

BOARD MEMBER HUGH FRIEDMAN: And just the final question, if I may, and it really again keys off of Supervisor DeSaulnier's question, if we were able to get similar funding next year to keep it going, this program going of replacing and/or retrofitting, would this, if you knew now if you had another X million, would this proposal be any different?

EXECUTIVE DIRECTOR KENNY: If we had basically the exact same factual situation then as we have now I think the proposal would be identical. I think the thing that would potentially change the proposal, assuming more money in the future, is that we may have a different set

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

147

1 of factual circumstances which may modify what we would 2 propose to you.

3 BOARD MEMBER HUGH FRIEDMAN: And you'd have more 4 experience with both Green Diesel and with retrofits as 5 well. 6 EXECUTIVE DIRECTOR KENNY: Yes.

BOARD MEMBER HUGH FRIEDMAN: Thank you.
CHAIRPERSON LLOYD: Questions of board members on
my left?

10

I had a question of staff. As I recollect,

11 you're saying the average life of a bus is expected to be 12 225,000 miles. The traps are warrantied to 150,000 miles. 13 What happens between the additional 75,000 miles?

14 ON-ROADS CONTROLS BRANCH CHIEF KITOWSKI: I can 15 speak to that slightly, but we also have several trap 16 manufacturers coming up later that may address it more 17 definitively.

18 CHAIRPERSON LLOYD: They're going to say that 19 it's going to be better than 150,000 miles.

20 ON-ROADS CONTROLS BRANCH CHIEF KITOWSKI: I think 21 they'll say it's going to be better than 150,000 miles. 22 And in addition, the traps are made in a rather modular 23 format so that the substrata inside could be removed and 24 replaced if needed and that would minimize any cost.

25 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: And

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

148

they're typically in place in the muffler, which means that they're easy to access and change or do things to and they are cleanable, typically. So if the trap deteriorates due to modest plugging from aging, it's possible in many, many cases to clean it up. So I think that maybe the 150,000 miles is right for the original piece, but then I think there are things you can do to extend the life of the trap.

9 DEPUTY EXECUTIVE OFFICER CACKETTE: I'd like to 10 add one comment is that the experience in Europe is 11 there's traps that are already well beyond 150,000 miles 12 durability. So there's some evidence that they will go a 13 lot longer than the warranty period.

14 CHAIRPERSON LLOYD: Thank you very much. We've 15 got 52 witnesses signed up so far. So we're going to 16 limit those to three minutes apiece. But a couple of 17 things before we start. I'd like to say a few words here.

Again, bear in mind, when you come to testify that the Board is very familiar with the problems of diesel particulate, obviously having identified as a diesel toxic air contaminant there. So please, if you want to use your three minutes telling us about that, fine, but remember in three minutes you'll be gone.

24 (Laughter.)

25 CHAIRPERSON LLOYD: The other part of it, too, I

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

149

1 think that here we're not talking about buying dirty 2 diesel. I've seen stuff in the press and quite honestly I 3 get a bit irritated that this is being mischaracterized. 4 And, in fact, if there's any evidence that the Board is 5 proposing to buy dirty diesel technology, I'd like to know 6 and I'm sure my colleagues would too.

7 I'd like to hear about the match issue from the 8 schools, clearly, that's a critical one here, and how that 9 impacts us there. I'd also like to hear if there are any 10 other manufacturers out there that can, in fact, match the 11 achievements of international with a Green Diesel 12 technology, because, again, we've been accused here of 13 favoring one manufacturer. If anybody else is out there 14 that's available, please, and let us know if there's any 15 other manufacturers, I'd like to know. I'm sure the Board 16 would, too, about the availability and cost of low sulfur 17 diesel. I'm sure that's going to be in there, it's just a 18 reminder.

And the other thing, if there's any information out there that diesel traps do not work, I'd like to have evidence of that as well.

22 So I think those things I'm looking for in some 23 of the testimony here as we proceed in the afternoon. So 24 with that, I'd like to call up the first three witnesses. 25 We have Brian White, Todd Campbell and Dr. Chung Lieu.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

150

1	MR. WHITE: Good afternoon, Chairman Lloyd, Air
2	Board Members and staff. I'd like to thank the staff for
3	providing the scheduled time for me. I have a time
4	constraint. It's kind of hard to be in San Francisco and
5	Sacramento at the same time, so I thank you for that.
6	CHAIRPERSON LLOYD: Thank you for your testimony.
7	(Laughter.)
8	MR. WHITE: That was my three minutes, right?
9	(Laughter.)
10	BOARD MEMBER DeSAULNIER: We'll help you to get

11 to San Francisco.

12 (Laughter.)

MR. WHITE: My name is Brian White. I'm the 13 Director of Education and Environmental issues for the 14 15 California Chamber of Commerce. On behalf of Californians 16 For a Sound Fuel Strategy, which is a California Chamber 17 led coalition of labor groups, of trade associations, 18 business groups and agricultural groups et cetera, we are 19 here to provide some brief comments on the Air Board's low emission school bus program guidelines. 20

Over the last two years, Californians For a Sound Fuel Strategy and its member companies have worked with several state and local agencies to develop reasonable and cost-effective approaches to regulating emissions from stationary, portable, and mobile source diesel fuel

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

151

1 engines.

All along our message has been simple. We support federal, State and local efforts to reduce exposure to diesel exhaust. However, these efforts must be fuel neutral while providing flexibility and choices that enable all technologies to compete in the quest to reduce both particulate matter and NOx emissions.

8 Earlier in the year, the Board recognized the 9 importance of adopting a fuel neutral policy when it 10 adopted a plan allowing transit operators to choose either 11 a clean diesel path or a natural gas path to reduce 12 emissions from urban transit buses.

The coalition appreciates the Board's action on the effort and hopes that the Board will continue to adopt policies in the future that are consistent with the approach. It will allow operators to choose the fuel path as most cost effective to meet their local needs.

With that in mind, we respectfully urge the Board to approve the staff proposal for lowering school bus emissions which allocates half of the available 50 million for the purchase of clean diesel or alternative fuels. While some have argued about which technology is cleaner, we do not plan to get into that debate.

However, the fact of the matter is that both natural gas and clean diesel should have a stake in

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

152

reducing exposure to diesel exhaust. Each technology has
 its benefits, and the decision to choose those
 technologies should be left to local school districts to
 prevent, in particular, the school districts that have
 budget constraints or are cash strapped, and they should
 not have to choose between books or buses.

7 No one disputes that clean diesel technology with 8 the use of particulate traps and cleaner engines costs far 9 less to purchase than alternative fuels. Additionally, as 10 you know, diesel fueling and repair infrastructure is 11 already widely in use, but the natural gas is also a 12 viable technology.

This is important because the goal of the program should be to reduce exposure to diesel exhaust while using the limited resources available in the most cost-effective manner. During the year's budget hearing, there was a big debate about which technology was going to get the funds. Due to the politics of the situation, the Legislature punted the issue to the Air Board and here we are.

20 But it was believed, at that time, that both 21 clean diesel and natural gas would have a role to play. 22 Our coalition strongly proposed in the budget negotiations 23 that fuel neutrality be an important issue and outcome of 24 whatever the Board decides. And we appreciate that the 25 Air Board staff has followed through given the dynamics of

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

153

the situation. The concept is simple, encourage all
 engine and fuel technologies to become cleaner.

3 The state of California has wisely chosen to 4 focus its efforts on both fronts, encouraging greater use 5 of natural gas, where feasible, and encouraging continued 6 improvements to diesel technology. Again, we urge you to 7 continue down the path and thank you for allowing us to 8 express our views.

9 CHAIRPERSON LLOYD: Thank you very much, Brian.10 Question, Mr. McKinnon.

11 BOARD MEMBER McKINNON: Yeah. I don't have a big difference with you. However, I'm not sure what labor 12 13 group means, but what labor organizations are involved in 14 your coalition? 15 MR. WHITE: The Labor Council, Council of 16 Laborers. 17 BOARD MEMBER McKINNON: That's two different 18 things. The State Council of Laborers Union? 19 MR. WHITE: Yes. 20 BOARD MEMBER McKINNON: Thank you. 21 CHAIRPERSON LLOYD: Thank you very much, Brian. 22 MR. WHITE: Thank you. 23 Todd Campbell, Chung Liu, then Robina Suwol and 24 Nicholas Buber. 25 (Thereupon an overhead presentation was PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

154

presented as follows.) 1 2 MR. CAMPBELL: Good afternoon, Chairman Lloyd, 3 members of the Board. My name is Todd Campbell. I'm the 4 Policy Director for the Coalition For Clean Air. And I feel that the program is win-win for the State of 5 California and for the children who ride school buses. 6 7 However, I feel that it could be more of a 8 win-win with amendments that we are going to suggest to 9 you today. I'm the first of many environmentalists that 10 will be coming to you. Can I have the next slide please

and can I have the lights dimmed down a little bit so 11 everybody can see the Board. 12 13 --000--14 MR. CAMPBELL: We have a wide coalition 15 supporting using the cleanest buses available, under this 16 program. 17 Next slide, please. 18 --000--19 MR. CAMPBELL: I'd like to remind you that under -- the ARB has a historical pattern of rewarding or 20 trying to encourage the cleanest options available. ARB 21 22 adopted a resolution, 9849, that stated that they would 23 replace diesel fuel school buses and public transit buses 24 with cleaner alternative fuels. You also have put in 25 place an optional low NOx standard that has been set in PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 155 1 1995. It has been used in the Moyer Program. It has also 2 been used for mobile source reduction credits, as well as 3 the mobile source air pollution reduction review 4 committee. 5 In fact, I have a letter here today from the 6 Speaker Emeritus of the Assembly, Antonio Villaraigosa who 7 also urges Chairman Lloyd and the Board to consider or to 8 uphold the optional low NOx standard as it has advanced 9 technology throughout the years. And I will make it 10 available to you if you do not have a copy of that.

11 But also the Board and the agency has a goal of zero and near zero emissions. And we believe that 12 13 alternative fuels are pushing towards that goal. It is a 14 lighter than air gas and it has a proven track record on 15 the record for not only reducing emissions but also being 16 a bridge to fuel cell technology, which will ultimately 17 make zero emission vehicles for kids available. 18 Next slide, please. 19 --000--MR. CAMPBELL: This is the problem of in-use 20 emissions. As you can see, the bus clearly didn't come 21 22 out of the laboratory like that. There was no way that we could allow the bus to come out this way. Our concern is 23

25 tested, that it has not gone through the riggers that it

24 that the Green Diesel technology has not been fully

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

156

1 should go through. And looking at historical emission
2 levels, in our experience with in-use emissions, we have
3 projected that the actual NOx emissions in the useful life
4 will range about somewhere around, as you can see the
5 diesel engine -- or the Green Diesel is the red, but
6 there's about 8.5 grams NOx and the natural gas at 6.3
7 grams NOx.

8 That is the importance of starting at a low base 9 from the outcome, you want to certify engines or reward 10 engines that are starting from a lower base, because over 11 their lifetime they may actually -- they will deteriorate, 12 that's the combustion engine.

13 Next slide, please.

14

--000--

15 MR. CAMPBELL: Oh, step back. Also, ARB should 16 advance these, not allow it to backslide. We believe that 17 the US Environmental Protection Agency rule will advance 18 diesel. We do not believe that the school bus rule should 19 do that or could do that. In fact, we believe accepting a 3.0 NOx standard doesn't advance diesel, that 20 21 International is not required to advance their products to 22 2.5 grams or meet the optional low NOx standard by October 23 2002, even though they are under the commitment or under 24 the lawsuit about defeat devices under United States 25 versus Navistar International.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

157

And we also believe that they are a significant 1 portion of the market share, representing 60 percent of 2 school bus sales. And it's incredibly important to 3 encourage them and not reward them at the outset, but 4 encourage them to get to 2.5 grams. We think this is 5 showing the environment by allowing an engine 6 7 manufacturer, one engine manufacturer, to receive funds 8 without meeting the optional low NOx standard. 9 Next slide, please.

--000--

10

11 MR. CAMPBELL: This is also to show you why we think the optional low NOx standards is important because 12 13 it does advance the technology. As you can see in the out 14 years in October 2002, the optional low NOx standard does 15 move down to 1.8 grams. And we feel that if we follow the 16 path, like we have in the last five years, we'll not only 17 advance diesel, but also natural gas and other alternative 18 fuels will continue to reduce their emissions.

19 Next slide, please.

1

--000--20

21 CHAIRPERSON LLOYD: Todd, what's the color on the 22 lights there, on your timer?

23 MR. CAMPBELL: I've got no lights.

24 CHAIRPERSON LLOYD: Why is it not working?

25 I think you've had three minutes, so if you've --

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

158

can you wrap up? MR. CAMPBELL: Sure. I'll just go quickly. I 2 just wanted to touch on toxics. I don't believe that 3 4 staff can come to you with a credible case today considering in-use emissions and say with any certainty 5 that PM is less on the diesel path versus the alternative 6 fuel path. And if they were equivalent, the diesel 7 particulate is a toxic air contaminant. It has been 8 9 listed with 30 human epidemiology studies, and there are 10 no studies linking CNG particulate to lung cancer.

And then the final point I have in the next slide
please --

13

--000--

MR. CAMPBELL: -- is that there are so many other buses that we need to address. We're requesting that the Air Resources Board put in their BCP, the continuation of this program for next year of \$50 million. According to a couple Board members, it's still a possibility to get that money in. And I have letters that actually Dr. Burke will receive when he considers school buses next year from children.

22 Children want clean buses and this is a very 23 important step. We want to make sure that public funds go 24 to the cleanest buses.

25 Thank you.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

159

1 CHAIRPERSON LLOYD: Thank you, Todd.

2 Any questions from the Board?

3 Mr. McKinnon.

BOARD MEMBER McKINNON: Mr. Campbell, you had the smoking bus in your visual there. You're not suggesting that the new Green Diesel bus is the bus that was in that picture?

8 MR. CAMPBELL: Absolutely not. I think that's --9 the smoking buses are addressing the issue of part 2 of 10 the rule, which is the after-treatment. And we actually 11 are not. We are in favor of the after-treatment. We 12 believe that existing buses do need to be addressed. And 13 the after treatment can play a role. We're hoping -- I 14 mean the problem is that there's so much money being spent 15 on untested and, you know, noncertified equipment. And we 16 want to make sure that we're really going to be protecting 17 children's health by spending it in the -- you know, in 18 the areas that we know we'll succeed on the road.

BOARD MEMBER MCKINNON: Well, I know that we all have the same objective. We may end up with slightly different solutions, but I want to kind of bring down the level of, kind of, a promotion like a bus that's spewing when, you know -- let's have a conversation about what we're really talking about. And I don't think any of the buses we're talking about are going to look like that.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

They better not.

1

160

2 MR. CAMPBELL: I also think that waving a white handkerchief in front of a tailpipe really doesn't tell 3 4 you anything either. 5 BOARD MEMBER McKINNON: Well, I'll make the same comment if that happens, too. 6 7 Thanks. CHAIRPERSON LLOYD: Mr. Calhoun. 8 9 BOARD MEMBER CALHOUN: Yeah. Would your 10 testimony be different if the green diesel had been

11 certified to the two and a half NOx.

12	MR. CAMPBELL: I believe that that would be the
13	case, yes. I believe you should reward engines that meet
14	the standards that the Air Resources Board put forward.
15	And by backsliding and stepping back in our standards,
16	then we have a sincere problem, because now do we really
17	mean what we say when we set a standard?
18	I mean, if this was a standard adopted last year,
19	there may be some flexibility. But this is a standard
20	adopted in 1995. We're almost to the next low optional
21	NOx standard. We should be going, you know, to zero, not
22	the other way around.
23	CHAIRPERSON LLOYD: Thanks.
24	Dr. Chung Liu.
25	DR. CHUNG LIU: Chairman Lloyd, Members of the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

161

Board, the South Coast AQMD has long recognized the adverse air quality and health impacts of diesel exhaust on children. In January 1999, under the initiative of our government Board Chairman Burke, the South Coast District adopted the Children's Air Quality Agenda to pursue additional measures to protect children from the disapportionment impacts from diesel exhaust. More recently our board started to adopt a school bus program. The foundation is to provide funding

10 assistance for purchasing cleaner school buses and

11 retrofitting the existing fleet with the emission 12 controls.

13 The South Coast District considers a proposed 14 lower emission school bus program guidelines for 15 replacement and retrofit of older diesel buses to be of 16 the utmost importance, since there isn't enough funding 17 available from local and State sources at this time, but 18 we do have a few comments here to make about both the 19 retrofit program and also the bus replacement program.

20 On the retrofit part, the South Coast district 21 strongly supported a funding level of \$20 million as 22 originally proposed by your staff, rather than the last 23 minute change to \$10 million for existing school bus 24 retrofits. We believe that \$20 million allocation in 25 funds for installation of a particular trap will yield

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

162

immediate and much, much bigger benefits. And so for that
 matter, we really don't see the rationale of reducing from
 our original proposal.

About the replacement program, the South Coast District strongly opposes the NOx emission of three grams per brake horsepower hour for new replacement buses. I have to point out, the standard site for CNG buses in the staff guidelines, 2.5 grams and .03 gram for PM, is not the CNG performance at this time at all. And this is by far better than that. 11 And the ARB continues using the optional standard of 2.5 grams for all other heavy-duty vehicles. And 12 that's combined for PM and NOx -- I'm sorry for PM and 13 14 hydrocarbons. And actually the option standard is 15 expected to achieve 1.8 grams of NOx. And the three grams 16 really is lax, particularly considering that now the ARB 17 is going to certify themselves and rely on EPA FEL's certification process. We just don't know the rationale 18 19 for doing that. And so we propose that we should stick to 20 a higher standard on the one.

21 Secondly, we propose the guideline of the school 22 bus replacement program to include the replacement of 23 diesel school buses with large size pool when powered by 24 gasoline, which mean much lower amount of NOx, particulate 25 matter and air toxics.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

163

1 The special education problem calls for greater 2 demand on mid-sized vehicles than full-sized buses in a 3 large number of school districts. We propose the type of 4 vehicle be allocated in the petroleum-based new vehicle 5 portion of the program.

6 Lastly, the South Coast AQMD supports allocation 7 by population, but we also believe that each air district 8 should retain needed flexibility which will enable them to 9 very effectively distribute funds for the new bus 10 replacement program to achieve the clean air goals. South 11 Coast proposed that the special types of replacement buses 12 be determined locally. In case of eligibility of new 13 Diesel replacement buses, the maximum amount of a local 14 match should not exceed the cost of a particulate trap, 15 because that's what it's mainly about.

16 That concludes my comments.

17 CHAIRPERSON LLOYD: Thank you, Doctor. I'd like 18 to ask staff to respond to the question of certification 19 of the three gram.

20 EXECUTIVE DIRECTOR KENNY: With regard to 21 certifications, what we were doing is essentially 22 recognizing that the three gram engine is cleaner than the 23 current four gram certification standard that actually 24 does exist. There are optional standards, and 2.5 is 25 where the current optional standards are.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

164

However, we were trying to also reflect -- what we were trying to also reflect in the proposal that we were making to the Board is that there is a differential in the cost of the buses, whether it's a diesel or a CNG bus.

6 And take into account that the cost of the CNG 7 bus is roughly 30 percent higher than the cost of a diesel 8 bus, and then you take into account the fact that you have 9 a two and a half gram standard and you have the three gram 10 standard. In effect, what you can do is you can buy three 11 cleaner diesels for the price of two cleaner CNGs. And we 12 thought there was, therefore, a value from a health 13 standpoint to bring the cleaner diesels into the 14 marketplace.

The other thing I would mention, also, is that the current standard is four grams. And so they are essentially certifying to a lower standard than the current standard. And then the other thing that we talked about was the fact that on the PM side, the PM levels that we were talking about for the diesel are lower than the PM levels we were talking about for the CNG.

And so when we balanced all of those things together, the certification numbers, it seemed to be reasonable to essentially allow the clean diesel into the marketplace because we got lower PM and then in aggregate

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

165

1 we got lower NOx. 2 CHAIRPERSON LLOYD: What about the issue with certification by us vis-a-vis EPA, the difference there. 3 4 EXECUTIVE DIRECTOR KENNY: Well, these are FEL and those are EPA certification standards. 5 6 CHAIRPERSON LLOYD: Any questions from the Board? 7 Thank you, Dr. Lieu. We have Robina Suwol, Sandy Silberstein, Bruce 8 9 Bertelsen, Kevin Hallstrom and Henry Hippert. 10 MS. SUWOL: Hi. Thank you very much. I want to

11 take the opportunity to thank the Board for your 12 consistent and continual efforts to protect the public. 13 My name is Robina Suwol. I'm a parent of a son, Nicholas, 14 who's here with me today, who has asthma.

I have no vested interest in the financial outcome of this hearing today. And I don't know if anyone present, I certainly hope not, has ever had to witness a child gasping for air from an asthma attack. It's particularly horrifying, particularly when the cause is oftentimes trapped behind a school bus that's spewing toxic diesel.

Asthma, as we all know, is the number one childhood illness in the United States right now. And we're all familiar with the studies that link cancer and asthma to diesel. I'm here today and I've come up at my

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

166

own expense with my son to request that this Board please not weaken the standards of public health. The Green Diesel proposal for which you are all being heavily lobbied proposes that \$15 million of taxpayer's money be used to, hopefully, repair, and I say hopefully, because there's no guarantee that these buses will run any cleaner.

8 In fact, past tests have proved that companies 9 sold engines that, yes, they could pass laboratory smog 10 tests, but in reality they spewed pollution equivalent to 11 65 million additional cars.

12 Therefore, I do not believe that the public 13 supports a \$15 million payment to International Truck with the condition that they're going to try to poison children 14 15 and community members just a little bit less. 16 I request that the use of the \$15 million of 17 taxpayer money please be used to purchase proven cleaner alternatives. And I'll end by saying that I thank you for 18 19 the time. 20 My son asked how government worked. And I explained to him that everyone is given the opportunity to 21 22 speak. And he said even a nine-year old. And I said yes, and so if he can just take one moment. 23 24 CHAIRPERSON LLOYD: Certainly. 25 MR. BUBER: Hi. My name is Nicholas and I have PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 167 1 asthma. Kids are getting sick and dying from diesel. 2 Please help us. 3 CHAIRPERSON LLOYD: Thank you. 4 MS. SUWOL: Thank you very much. 5 CHAIRPERSON LLOYD: I just want to reiterate that this Board has no intention of -- we intend to clean up 6 7 the air and not make it worse. 8 MS. SUWOL: Thank you very much. 9 CHAIRPERSON LLOYD: Thank you. Sandy 10 Silberstein, Bruce Bertelsen, Kevin Hallstrom.

11 MS. SILBERSTEIN: I'm Sandy Silberstein and I'm representing the Riverside County Schools Advocacy 12 13 Association, which is comprised of all school districts of 14 Riverside County. And we are in support of the staff 15 recommendation. We are especially pleased that -- first 16 of all, we're very pleased to have \$50 million for school 17 buses. We are especially pleased with the fuel neutral policy and having the choice of fuels. We're pleased with 18 19 no match on the retrofit program. And we are pleased that you are proposing to allocate the money on a population 20 21 basis.

However, we do ask for one amendment and it speaks to Chairman's Lloyd request that we speak to the match issue. We would request that the Board consider amending the proposal to either reduce or eliminate the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

168

match or to, at least, maybe tie it to a district's 1 ability -- a school district's ability to pay tied to 2 their -- and, excuse me, and their transportation costs. 3 4 I think you're all probably aware that we are -the public schools are the largest suppliers of public 5 transportation in the State of California. And I would 6 argue that that system is in crisis and is at risk. And 7 8 the Air Resources Board has an opportunity here, and I 9 would say even more so in the future to somehow save that 10 system.

11 We're asking for a reduction in the match for purely economic reasons, obviously. We have in Riverside 12 13 county 23 school districts. One of them has already 14 totally eliminated home-to-school transportation for its 15 students. Another has severely reduced home-to-school 16 transportation, providing it only to special education 17 students and those that live very, very far away in rural areas. A third district is considering eliminating 18 19 home-to-school transportation altogether.

That is a crisis for clean air in the State if it continues. It's my understanding we have somewhere upward of 60 school districts in the state now that have already eliminated home-to-school transportation because of the costs of the program. We have, as an example, the Murieta Valley School District in Riverside county that, since

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

169

1983, has grown 4,000 percent in population. 1 Their funding for home-to-school transportation 2 has grown only marginally and now they -- back in 1983 3 they received roughly \$70,000 a year for home-to-school 4 transportation. Now, with 4,000 percent more students, 5 they receive \$78,000 a year. That's a \$1.2 million 6 encroachment on their budget. They will have to make the 7 8 hard economic decision very soon whether to continue to 9 bus their students at all. 10 The 50 million is a wonderful start. We're

11 asking you to consider reducing the match so more of us 12 can play and to consider our ability to pay when you do 13 allocate, if you do impose a match.

And finally, we would ask that the Air Resources Board step forward and assist us in getting more State funding in the future for home-to-school transportation. We believe the system is worth saving.

18 Thank you.

19 CHAIRPERSON LLOYD: Thank you very much.

20 Dr. Burke.

21 BOARD MEMBER BURKE: Before you go.

22 CHAIRPERSON LLOYD: One question.

23 BOARD MEMBER BURKE: Some school districts have
24 voiced an opposition to retrofit. Is your school district
25 one of those?

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

170

MS. SILBERSTEIN: No, we're not. None of the 23
 are.
 BOARD MEMBER BURKE: So you have no problem with
 retrofit?
 MS. SILBERSTEIN: We think retrofitting is a
 great idea.
 BOARD MEMBER BURKE: What if all the money was
 retrofit?
 MS. SILBERSTEIN: I guess that sort of gets into
 the issue of, and that's not my area of expertise, of how

11 much clean air we get out of this, okay.

12 BOARD MEMBER BURKE: Well, we get more clean air 13 out of retrofit immediately than we get out of all the other, but we don't advance technology, so it's a trade 14 15 off. 16 MS. SILBERSTEIN: Okay. 17 BOARD MEMBER BURKE: I just was trying to get to the bottom of why some school districts are opposed to 18 19 retrofit. I thought maybe you could --20 MS. SILBERSTEIN: They aren't ours and I don't 21 know the answer. 22 BOARD MEMBER BURKE: Thank you very much. 23 CHAIRPERSON LLOYD: Thank you. Bruce Bertelsen, Kevin Hallstrom and Henry 24 25 Hippert.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

171

1 MR. BERTELSEN: Good afternoon. My name is Bruce 2 Bertelsen, the Executive Director of Manufacturers of 3 Emission Controls Association. And following me will be 4 individuals from Englehard, Johnson-Matthey and Ceryx, 5 three of our member companies who are manufacturing diesel 6 particulate filter control technology.

7 We're here today to express our strong support 8 for the proposed guidelines. We recognize that the Board 9 and the staff faces very difficult choices in trying to 10 design and establish the funding allocations, but we think 11 that the program, as outlined, fairly balances a lot of 12 competing and important considerations and it will achieve 13 important objectives.

First, it will significantly reduce the exposure 14 15 of school children and others to diesel PM exhaust. 16 Second, it will achieve NOx reductions. And third, it 17 provides critical support for three important strategies that, I think, in the long range are going to play an 18 19 incredibly important role in reducing overall diesel PM emissions, alternative fuel technology, lower diesel 20 21 engine technology -- excuse me, lower diesel PM engine 22 technology and retrofit strategies.

Because there were some questions asked, I want to use the rest of my time to touch on some things that were mentioned previously. First of all, with regard to

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

172

diesel particulate filters, that's a technology that is
 available today. It's been demonstrated. Actually,
 worldwide there are about 40,000 engines that have been
 equipped with filter technology.

5 I had an opportunity at the advisory committee 6 meeting earlier this year where experts from Switzerland, 7 Sweden, and Germany came and shared with members of the 8 advisory committee, the retrofit advisory committee, 9 experience with filter technology in Europe. And all I 10 can say is it was an extremely strong endorsement of the 11 technology.

12 The durability has been well established, as was mentioned previously. There are filters that have been on 13 vehicles for literally hundreds of thousands of miles and 14 15 are performing effectively. A question was raised about 16 toxic emissions. We did a study about a year and a half 17 ago where we demonstrated about an 80 percent reduction in 18 PAH emissions, total PAH emissions. There have been a 19 number of other studies that have shown similar results. Another factor which hasn't really been touched 20 21 on here is that in addition to achieving PM mass emission reductions of 90 percent or more, filter technology is 22 extremely effective in controlling the ultra-fine 23 24 particles, the carbon based ultra-fine particles. A

 $25\,$ number of test programs around the world have demonstrated

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

173

that filter technology can control up to 99 plus percent 1 of these ultra-fine particulates. 2 3 So I think it's a technology that will serve the 4 citizens and the school children of California well. 5 Thank you very much. 6 CHAIRPERSON LLOYD: Thank you, Bruce. 7 BOARD MEMBER BURKE: One question. Forty 8 thousand units are currently being used in various 9 products for traps. Can you tell me where they are? 10 MR. BERTELSEN: Where they are?

11

BOARD MEMBER BURKE: Yeah.

12 MR. BERTELSEN: They're in Europe. They're in 13 the United States. They're in Asia. There are some in 14 Latin America.

15 BOARD MEMBER BURKE: So you feel most of them are 16 in Europe?

17 MR. BERTELSEN: I'll defer to the members, but I would believe that the majority of them are in Europe. 18 19 BOARD MEMBER BURKE: What has me, you know -- and I'm a trap advocate, you know, so I don't want you to 20 misunderstand me, but what I don't understand is how 21 22 Europe got so far ahead of California. I don't understand that. And I don't understand how all these traps, forty 23 24 thousand is a lot of traps when you start to think about 25 it, how they got -- what's the certification process used

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

174

1 for wherever these 40,000 traps are? And how come if they
2 were certified in those countries, why weren't they
3 certified in California?

4 MR. BERTELSEN: I guess I'd make two comments. 5 First of all, one of the reasons that filter technology 6 got the jump in Europe was because there was availability 7 of low sulfur fuel. And what we've seen is where low 8 sulfur fuel is available, is technologies perform 9 extraordinarily well. And California has taken a big step 10 in that direction. And you're absolutely right, Europe 11 may be -- this may be the one instance where Europe got 12 ahead of us, but I think with the California program 13 they're going to be a distant second in a couple of years.

But that was one of the major reasons in terms of the on-road experience. But there also have been filters put on off-road equipment all over the world as well. So it's not like -- I don't know, maybe one of our members can give us --

BOARD MEMBER BURKE: You know, they don't have Green Diesel fuel in Japan and in Asia and a lot of these other countries you're talking about where these traps are operating. I don't want to prolong this. We're going to be here all day anyway. But these are questions that I'm sure are ruminating through the minds of all my colleagues, so I just wanted to --

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

175

1 CHAIRPERSON LLOYD: Well, I know from attending 2 the meeting down in LA on the retrofit, I can speak from 3 talking to people in Europe. I think what Bruce reflects 4 there is definitely correct. Again, I don't know about 5 that, there may be spot markets in Asia and things. But, 6 again, I think we look to Englehard and Johnson-Matthey to 7 maybe address those.

Yes, Mr. McKinnon.

8

9 BOARD MEMBER McKINNON: Yeah, two things. I10 think one of the questions earlier talked about the

11 150,000 miles versus a 225,000-mile life of the bus.
12 Don't diesel engines run cooler and isn't there kind of
13 evidence that given low sulfur diesel that's consistent,
14 the traps should last longer than say a gasoline vehicle
15 because of heat?

MR. BERTELSEN: Well, what will happen -- if you 16 17 have low sulfur fuel, if you have an engine that operates with a relatively lower temperature or an engine that 18 19 operates in an area with a cold ambient temperature, the availability of low sulfur fuel facilitates the 20 21 regeneration or cleaning of the filter. And you're 22 absolutely right, as long as that continues to occur, 23 which it will occur with low sulfur fuel, these filters will last for an incredibly long time. 24

25 I mean, there have been engines that have run

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

176

600,000 kilometers or more with filters and low sulfur 1 fuel. The reason that you have filter technology in other 2 parts of the world is that if the engine in its particular 3 4 application runs very, very hot, for example, mining equipment, which is full load operational all the time, 5 the fact that you're using slightly higher sulfur is not 6 going to be a factor, because you're reaching such high 7 8 temperatures that that filter is going to regenerate 9 anyway.

10

When you're looking at the on-road experience

11 where the temperatures may be lower due to the design of 12 the engine or the operating condition, then it's far more 13 important, in fact it's critical, to have low sulfur fuel 14 to ensure that regeneration, that cleaning of the filter.

15 BOARD MEMBER McKINNON: How many years would you 16 guess or estimate have particulate traps been protecting 17 miners and firemen in fire houses?

18 MR. BERTELSEN: I believe filter technology was19 introduced in mine applications in the early eighties.

20 BOARD MEMBER McKINNON: I guess my last question 21 you were talking about Europe, and it kind of reminds me 22 of where we really want to go. I mean buses are a small 23 percentage of the diesel emissions that we experience in 24 the state. A lot of it is trucking.

25 And you talked about Europe. What's happening

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

177

with trucking and diesel and particulate traps in Europe? MR. BERTELSEN: I'm going to let some of our individual members give you some information on that, but obviously the first target for filter technology in Europe were buses because they operated almost exclusively in high population zones, but there has been some work done with trucks as well.

8 And there is absolutely no reason why the 9 technology can't be applied as effectively to trucks as it 10 has been to buses. CHAIRPERSON LLOYD: Or the other way around.
 MR. BERTELSEN: Or the other way around.
 CHAIRPERSON LLOYD: Thank you. Thank you, Bruce.
 I guess Kevin Hallstrom, Henry Hippert, Gerald
 Smith.

MR. HALLSTROM: Good afternoon. My name is Kevin Hallstrom and I'm the technical manager for the Environmental Technologies Group at Englehard Corporation. Englehard is pleased to testify in support of the proposed school bus guidelines.

The proposal would provide significant emission reductions on vehicles that carry our most precious resource, our children. Englehard is a Fortune 500 Corporation that is a leader in the development of emission control catalyst technologies. Englehard

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

178

commends the Air Resources Board for focusing the program
 on the emission that is deemed most harmful, that is the
 particulates.

4 The program will significantly reduce the 5 particulate emissions of the California school bus fleet. 6 Englehard supports the effort to utilize the best 7 available technology to obtain the maximum emission 8 reductions cost effectively. By utilizing vehicle 9 replacements with both alternative fuels and clean diesel 10 and along with retrofits, the program is designed to offer 11 the school districts the options they need to make the 12 program a success.

Englehard supports the fuel neutrality of this program and the precedent it sets by utilizing the best technology currently available, new clean diesel buses, new clean alternative fuel buses with catalysts that address formaldehyde and carbon monoxide and buses retrofitted with particulate traps using ultra low sulfur diesel fuel.

At this time, Englehard has already designed muffler replacement kits for ten different vehicles using seven different types of engines of various ages. And we are continuing to develop new designs in conjunction with the original equipment muffler manufacturers.

25 Upon ARB certification, the current designs will

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

179

be available for large-scale production in the first quarter of 2001 and include designs for pre-1994 and post-1994 buses. The retrofit kits using Englehard's proven DPF technology will provide over 95 percent particulate reductions and over 80 percent reduction of carbon monoxide and hydrocarbons.

7 The retrofit kits will allow the school bus
8 districts to continue to utilize their existing bus fleets
9 but meet the emission requirements set forth in the
10 proposal, for a minimal cost while maximizing the emission

11 reductions per benefit per dollar.

12 Again, Englehard supports the school bus proposal 13 and commends the ARB for its continued pollution control 14 leadership. 15 Thank you. 16 CHAIRPERSON LLOYD: Thank you very much. 17 Ouestions? 18 Yes. 19 BOARD MEMBER RIORDAN: A question. Going back to 20 some of the prior conversation, do you have any existing 21 work that you've been party to in Europe, for instance, 22 now on a bus or a truck there, with your --23 MR. HALLSTROM: Yes. 24 BOARD MEMBER RIORDAN: And the experience is 25 good? PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 180 1 MR. HALLSTROM: Mostly good, yes.

BOARD MEMBER RIORDAN: And duration is, what, in 3 terms of the --

4 MR. HALLSTROM: Three years up to about 200,000 5 miles. We've also had a fleet demonstration in New Jersey 6 on their transit vehicles for the last five years. We've 7 been doing the ARCO program. And I believe the initial 8 vehicles that were installed there were school buses from 9 San Diego that were installed about 16 months ago and 10 already have 30,000 miles. 11 Some of the tanker trucks for ARCO and Ralph's are now a hundred, a hundred twenty thousand miles and 12 13 still operating.

14 BOARD MEMBER RIORDAN: Thank you. 15 CHAIRPERSON LLOYD: Yes. Dr. Friedman. 16 BOARD MEMBER WILLIAM FRIEDMAN: Tell me, what 17 does it actually cost in real dollars to do one bus? 18 MR. HALLSTROM: The estimated cost is between 19 four and six thousand dollars per bus. It depends a little bit on the size of the engine that's used in the 20 vehicle and the packaging that's necessary to install it. 21 22 BOARD MEMBER WILLIAM FRIEDMAN: That's with 23 installation? 24 MR. HALLSTROM: It's with installation. 25 CHAIRPERSON LLOYD: Thank you very much.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

181

BOARD MEMBER CALHOUN: What about the longevity, 1 I'm talking about the mileage? What do you estimate is 2 the life of the catalyst in terms of miles? 3 4 MR. HALLSTROM: I mean if you look at the questions that have come before, you talk 150,000 miles, 5 that's the warranty. That is an emission warranty. It's 6 just like your car. You don't expect the catalytic 7 converter to stop working after 100,000 miles. That's 8 9 just when the warranty expires. 10 I would expect these to last well in excess of

11 150,000 miles. On a school bus it's a little difficult, 12 because they do not operate that many miles, 225,000 miles 13 is probably 15 years. So on a school bus, we probably 14 expect it to last the life of the vehicle where on a 15 transit vehicle, like on a transportation truck, 300,000, 16 400,000 miles would not be unexpected.

17 BOARD MEMBER CALHOUN: What about the efficiency 18 at this extended mileage?

19 MR. HALLSTROM: Okay. Well, you have to look at 20 the filter. There's a physical mechanism of the filter. 21 And that physical mechanism reduces 99 percent of the 22 carbon particles, which is 80 plus percent of the diesel 23 particulate that is coming out of the vehicle. And in 24 addition to that, you have a catalyst on there that will 25 reduce the remaining portion and is used for both reducing

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

182

the soluble organic fraction and for providing the method
 of regeneration.

3 So that catalyst is the same type of technology 4 that's used currently on urban bus catalysts. And life on 5 those type of catalysts is improved in excess of 500,000 6 miles. So the catalyst technology is very much expected 7 to be very similar reductions, 90 to 100 percent. And 8 there's been some SAE papers that have shown that even 9 after 300,000 miles of operation.

10 CHAIRPERSON LLOYD: Thank you.

Kevin Hallstrom, Henry Hippert, Gerald Smith,
 Jeff Redoutey.

13 MR. HIPPERT: Good afternoon, Chairman Lloyd, 14 Board Members and staff. My name is Henry Hippert. I'm 15 From Johnson-Matthey. I appreciate the chance to address 16 the Board regarding the proposal for retrofitting of 17 school buses.

18 The technology that Johson-Matthey is proposing 19 to use for the program is a ThatRT patented PM emission 20 control device. This technology is in use worldwide and 21 is available for a wide range of applications. The 22 product is currently being manufactured in California. It 23 is available today for production quantities.

And just on behalf Of Johnson-Matthey I want to express our support for the program. I'm sorry to say our

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

183

diesel expert was unavailable to be here today, so I will bring back any questions you have, but don't think I will be able to answer them as best as we could. CHAIRPERSON LLOYD: Where are they manufactured you say? The completed manufacturing is done in California. CHAIRPERSON LLOYD: But where? MR. HIPPERT: In Southern California, Rancho Santa Margarita. 11 CHAIRPERSON LLOYD: Okay. Any questions?

12 Thank you.

13 MR. HIPPERT: Thanks.

14 CHAIRPERSON LLOYD: Jeff Redoutey. I don't think15 Gerald Smith is here. He's not here.

16 MR. REDOUTEY: Gerald had to catch a plane. 17 Good afternoon. I am Jeff Redoutey. I'm the vice president of sales and marketing for Ceryx. Ceryx is 18 19 a Ventura County, California based company that develops, manufactures and markets division emission control --20 excuse me, diesel emission control devices. These devices 21 control particulate matter, carbon monoxide, hydrocarbons, 22 and oxides of nitrogen. 23

I wanted to spend a few moments today lending
Ceryx's support to this program. We are very excited with

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

184

the opportunity to participate in cleaning school bus 1 emission in the State of California. I think this is a 2 great example of California's leadership throughout the 3 4 nation. I would expect other states to follow suit when they realize the success of this program. We believe that 5 retrofits are very cost effective methods to reduce diesel 6 emissions very quickly in a wide variety of school buses. 7 We applaud the Board for including significant dollars for 8 9 retrofits and we feel that it is money exceptionally well 10 used.

I would like to inform the Board of some of the activities the Ceryx is undergoing at this point in time to prepare for the effort. Specifically, a significant number of our resources at Ceryx are devoted towards participation in the program. We look at it as three particular things that we need to accomplish. The first is to demonstrate the technology.

And we are doing that currently in the South Ocast demonstration program. And we feel that we will be demonstrating very quickly, as the bus gets tested, that we will see simultaneous reduction of particulate matter and NOx on those vehicles.

The second thing that we are spending a great deal of resources on is verification here in California under -- working very closely with Scott Roland and his

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

185

staff in order to become a verified technology here in the
 State of California.

3 The third thing that is consuming a significant 4 number of resources is preparation for manufacturing here 5 in the State of California. Given the program, we have 6 found that there are a great deal of manufacturers here in 7 the State of California that are very interested in 8 working with Ceryx to accelerate manufacturing. They do 9 not feel it is going to be a problem to deliver the 10 quantities the program calls for.

11 We look forward to contributing, in any way that 12 we can, towards making the area that these children 13 breathe that much cleaner and being able to tackle some of these difficult applications. 14 15 Any questions? 16 BOARD MEMBER RIORDAN: Mr. Chairman, if I might? 17 CHAIRPERSON LLOYD: Yes, Mrs. Riordan. 18 BOARD MEMBER RIORDAN: You testified that you're 19 currently a part of the program of testing with the South Coast and the ARB. 20 21 MR. REDOUTEY: Yes, we are. 22 BOARD MEMBER RIORDAN: And so you've actually got some of your equipment on a particular bus or engine, I 23 24 don't know how they do that? 25 MR. REDOUTEY: Yes, we do. We participated with PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 186 1 three vehicles at the point in time, a 1978 vehicle, I believe a 1987 vehicle and a 1999 vehicle. 2 BOARD MEMBER RIORDAN: And when will the testing 3 4 be completed? 5 MR. REDOUTEY: The first vehicle is scheduled to 6 be tested the latter part of next week and it will probably go into the following week. And that will be the 7 8 1978 vehicle. We have monitored that vehicle very closely 9 since we installed the device. And we feel very 10 comfortable that the device is doing exactly what it's

11 intended to do.

BOARD MEMBER BURKE: I think Mrs. Riordan also
wanted to know about the durability testing.

MR. REDOUTEY: Yeah. The durability testing right now is ongoing literally 24 hour days, seven days a week at the Ceryx facility. What we are doing is we are testing the longevity of the catalysts involved by putting in an awful lot of hours on the devices. We feel that is the most cost effective and efficient way to demonstrate the longevity of the catalysts that are involved in our system.

22 BOARD MEMBER BURKE: But is that being done on a 23 vehicle?

24 MR. REDOUTEY: There are vehicles currently --25 BOARD MEMBER BURKE: Is that being done on a

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

187

1 vehicle?

10 Greg Vlasek and Chris Brown.

MR. REDOUTEY: That particular -- Dr. Burke, that particular demonstration is not done on a vehicle. It is done on a generator set. We have vehicles here in Sacramento on school -- we have devices on school buses that are in use, as well as approximately 20 other vehicles throughout the world that are in use every day. CHAIRPERSON LLOYD: Thank you. Tom Trueblood, Lelon Forlines, then we've got MR. TRUEBLOOD: Good afternoon, Dr. Lloyd, members of the Board and members of the staff. My name is Tom Trueblood. I am manager of Public Affairs International at International Truck and Engine Corporation in Chicago. I'm not going to read the written statements that

17 we passed out, because I know Dr. Lloyd would give me the 18 hook after about the third paragraph. But I do want to 19 summarize the main points of the testimony.

And that is, first of all, we support the staff's proposal. We think it's a fair compromise. We realize they're trying to balance a lot of pressures and a lot of different interests coming from different directions. And, frankly, we would have preferred that all the money went to Green Diesel technology, but we know that, you

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

188

1 know, the world isn't perfect.

2 (Laughter.)

3 CHAIRPERSON LLOYD: Don't be greedy.

4 (Laughter.)

5 MR. TRUEBLOOD: We believe that the staff's 6 proposal really tries to provide the most environmental 7 cleanup for the money that's being spent. And I wanted, 8 in case you haven't seen it, I want to direct your 9 attention to page 35 of the staff report, because I think 10 that's realty the heart of the matter. 11 Basically, what that shows is that what the staff did basically is to say if you spent \$30 million on Green 12 13 Diesel technology, what International calls Green Diesel 14 technology, what the staff calls intermediate diesel 15 technology, I realize I don't want to go with the brand 16 name, you actually get emissions benefit and you get more 17 old buses off the road than if you spend the same \$30 million on natural gas buses. 18

19 I won't actually go through the numbers, but 20 they're there in the report and it's quite dramatic. And 21 that's also reflected in the body of the report. Now, 22 there is criticism of these figures. And the criticism is 23 that these are based on certification emission levels 24 rather than in-use emission levels. And I'd like to put 25 that one to rest.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

189

First of all, the advocates of natural gas have 1 cited in-use emissions data comparisons between natural 2 gas and old diesel, but they haven't compared in-use data 3 4 of what we call clean diesel or Green Diesel with natural gas engines. The latest information that we have comes 5 from the BP/ARCO EThat Diesel program, in which in-use 6 buses were tested on an in-use gram per mile chassis 7 8 dynamometer test in the San Diego Unified School District. 9 And they actually found that the in-use emissions 10 were better than we would have expected from the

11 certification numbers. They actually came up, in the case 12 of the buses, with no detectable hydrocarbon or 13 particulate emissions. So we think that that pretty much 14 lays to rest the in-use emissions problem or issue. And I 15 think the staff has also addressed that in their answer to 16 the earlier question about that.

17 The bottom line is that --

18 CHAIRPERSON LLOYD: Roughly three minutes.
19 You've taken roughly three minutes, can you wrap up?
20 MR. TRUEBLOOD: Yes. Children are going to be
21 better served by Green Diesel technology, because they're
22 going to be exposed to less NOx overall and less
23 particulates. And they're going to be riding in more
24 cleaner new buses.

25 So I'd like just to address Nicholas. I don't

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

190

1 know whether he's still here or not, but I'd like to tell 2 him and all of you, Nicholas, we're on your side. I'm a 3 father too. We're trying to do our part to speed the 4 cleanup of California's air. 5 CHAIRPERSON LLOYD: Can he get a ride in your 6 bus? 7 MR. TRUEBLOOD: Yes, absolutely. CHAIRPERSON LLOYD: Professor Friedman. 8 9 BOARD MEMBER HUGH FRIEDMAN: A quick question, if 10 I may, Mr. Trueblood. In your written materials that you

just handed out, you indicate that, "The 2001 Green Diesel technology bus will emit 3.0 grams of NOx per brake horsepower hour, but in just three years by 2004," I'm quoting, "We will have further reduced that NOx emission to less than 2.5 grams, matching the emissions of the natural gas powered buses." Can you tell me why that can't be accomplished any sooner?

MR. TRUEBLOOD: The reason it can't be accomplished any sooner is that our product plans are basically on target for 2004, a January 2004 compliance with the EPA and ARB standard. And unlike many of the other engine manufacturers, we were not required to pull forward the compliance technology, and we set our product plans on that basis. And there simply isn't time now for us to get there by October 2002, which is their deadline.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

191

BOARD MEMBER HUGH FRIEDMAN: So while you've been the first to develop a so-called clean or intermediate diesel engine, you're not able to accomplish that until 2004?

5 MR. TRUEBLOOD: Right. We're actually bringing 6 in a whole new line of engines. All of our engines will 7 be completely new in January 2004. And that's basically 8 what we're concentrating on. And, you know, we simply 9 don't have the manpower or the money to try to pull 10 forward the technology with the old engines. 11 CHAIRPERSON LLOYD: Mr. McKinnon.

BOARD MEMBER CALHOUN: I have one question I forgot to ask.

14 CHAIRPERSON LLOYD: Well, Mr. McKinnon and then 15 Mr. Calhoun.

BOARD MEMBER McKINNON: So International was able board to keep off a Federal Consent Decree pushing them to 2.5, in that you were not under that Consent Decree, you made product plans, your plan to switch over the engines in 202004. I think I get it now. Is that because -- were you able to stay out of the Federal Consent Decree because your company was performing better at cleaning up the emissions to date?

24 MR. TRUEBLOOD: Yes.

25 BOARD MEMBER McKINNON: So, in effect, if we

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

192

impose the 2.5 on your company, it would be kind of along 1 the lines no good deed goes unrewarded. We would --2 3 (Laughter.) 4 MR. TRUEBLOOD: You took the words right out of my mouth. 5 6 BOARD MEMBER McKINNON: Okay. 7 BOARD MEMBER DeSAULNIER: He put them right in. 8 (Laughter.) 9 BOARD MEMBER McKINNON: I also want to --CHAIRPERSON LLOYD: I think on that one after 10

11 that we need to go back to King Solomon.

12 (Laughter.)

EXECUTIVE DIRECTOR KENNY: Actually, if I could just maybe add one thing. International is part of the Federal Consent Decree. It's just the remedy associated with International is different than the remedy that was associated with, for example, some of the other companies in which the other companies had to pull ahead on a tighter timeframe.

BOARD MEMBER McKINNON: I also want to compliment you. I was a brand new Board member when you came to California with the Green Diesel bus. And I'm very clear that you were a lot of the push that we needed to get a discussion going hard and fast about moving the 15 PPM diesel. I mean BP moved and lots of other people, WSPA, a

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

193

1 bunch of people moved. But I think when you brought that bus around, that kind of ended up providing a focal point 2 to push that discussion. And I want to thank you for 3 4 that. 5 MR. TRUEBLOOD: Well, thank you. 6 CHAIRPERSON LLOYD: Mr. Calhoun. 7 BOARD MEMBER CALHOUN: I'll pass. 8 CHAIRPERSON LLOYD: Given the fact it's going to 9 take you until 2004 to meet the 2.5 standard, do you 10 anticipate any competitors taking advantage of the market

11 you've got here now.

12	MR. TRUEBLOOD: That's something that has
13	occurred to us might happen. There's no reason that other
14	manufacturers couldn't pull forward, couldn't put a
15	product on the market. The technology, as you just heard
16	from the after-treatment manufacturers is readily
17	available, and you know, any of our competitors can put
18	together the package and compete with us.
19	BOARD MEMBER CALHOUN: Now, I'll ask my question.
20	What if that happens? Could International pull ahead
21	their
22	MR. TRUEBLOOD: Well, we'd have to make that
23	decision of whether it was you know, whether it made
24	conce for us to go to the offerst and evenence. I think
	sense for us to go to the effort and expense. I think

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

194

1 awfully difficult for us.

CHAIRPERSON LLOYD: I think given the question, 2 3 you're saying well, the 2.5 doesn't fit in with your 4 current market plan. The other part of that is that well, 5 should the school children, in fact, also wait around 6 until you can get to 2.5. Now that's the other side of 7 that, so market plans change and whatnot. MR. TRUEBLOOD: Sure. 8 CHAIRPERSON LLOYD: Mr. McKinnon. 9

10 BOARD MEMBER McKINNON: Is it a market plan or is 11 it a production of a new engine plan? Those are sort of 12 different things.

13 CHAIRPERSON LLOYD: Yeah, I agree. 14 MR. TRUEBLOOD: Yeah, you're right. And really 15 we're talking about a whole new product in 2004, not 16 just --17 BOARD MEMBER McKINNON: If you can bring the production of those engines through earlier, you ought to, 18 19 you know. I just don't think we ought to make you do it because you stayed out of trouble. 20 21 CHAIRPERSON LLOYD: No, you're right, Mr. 22 McKinnon, that rather we'll say product time. 23 Dr. Burke. BOARD MEMBER BURKE: Is it really money or is it 24

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

25 really a marketing plan? Is it a function of money,

195

1 because it would seem like we would then consider maybe an 2 alternative if it's really just a function of money, as 3 you say, to move the production of these engines forward? 4 MR. TRUEBLOOD: Well, it isn't just a function of 5 money. It's resources in the larger sense. We have lead 6 times.

7 CHAIRPERSON LLOYD: And one of those is standing8 behind you.

9 MR. TRUEBLOOD: We have lead times that we have 10 to -- you know, the product development process is a long 11 one. And, you know, we've set those product development 12 processes into motion. And, you know, that's basically 13 where we're going to come out. We don't know how we could 14 speed them up.

15 CHAIRPERSON LLOYD: Warren did you want to -16 MR. SLIDOLSKY: Yes, I'm from engine engineering,
17 so I'm a little more closely to the issue.

18 CHAIRPERSON LLOYD: Maybe you could identify 19 yourself for the court reporter.

20 MR. SLIDOLSKY: Yes. I'm Warren Slidolsky. I'm 21 from International Truck and Engine Corporation. I'm 22 Manager of Environmental Staff. And I think Tom has 23 gotten at a lot of the issues and gotten it quite right. 24 But the real critical issue of pushing forward to the 2.5 25 NOx level is associated with the technologies that are

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

196

needed. And a critical technology in the reduction of NOx
 is EGR.

And for EGR, we need to develop that technology, so we can be assured that it will do all the things that are intended. There will not be customer dissatisfaction issues. And clearly in 2004, we will have the EGR systems. It's just that, in our case, because we didn't have the pull ahead, we haven't started that program, so we're in a position to add EGR next year. So that's the dilemma we find ourselves. 11 It isn't marketing and money -- well, in a sense it's money. But to drop everything, to ensure for just 12 13 the school bus to get that EGR in, many of our other 14 programs would suffer dramatically. So I'll stop with 15 that and if you have some additional questions. 16 BOARD MEMBER RIORDAN: Mr. Chairman? 17 CHAIRPERSON LLOYD: Yes, Mrs. Riordan. 18 BOARD MEMBER RIORDAN: Help me with EGR? 19 MR. SLIDOLSKY: Exhaust Gas Recirculation. Basically, what that does is cool down the combustion 20 temperature, because the cooler the combustion 21 22 temperature, the less tendency you have to produce NOx. 23 BOARD MEMBER RIORDAN: Thank you. 24 MR. SLIDOLSKY: I'm sorry. 25 BOARD MEMBER RIORDAN: No, that's all right.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

197

CHAIRPERSON LLOYD: Thank you. Do you have 1 another person from International testifying? 2 I've got Lelon Forlines. 3 4 MR. FORLINES: I would like to make a comment that -- Tom has already covered one of the issues that I 5 was going to address. Dr. Lloyd and ladies and gentlemen 6 7 of the Board, I very much appreciate the efforts not only 8 of your input, but that of the staff. I think it was very 9 wise in the decision that you have made. And I was going to make one comment about San

10

Diego Unified School District has been one that we have 11 like 30 units that have been operating there for a year 12 13 the past September, without any failure, without any downtime whatsoever. And if you're looking to have 14 15 someone to call to inquire from a source outside of 16 International, Mr. Roger Hanson, I'm sure as well as 17 Englehard and Johnson-Matthey would address any questions you may have with regard to the operational status of 18 19 those units.

20 CHAIRPERSON LLOYD: What's the total accumulated 21 mileage on those buses?

22 MR. FORLINES: The mileage right now would have 23 to be somewhere in the neighborhood of 35,000 to 50,000 24 miles. And that would vary depending on the bus and the 25 routing that they had taken. But I stay in touch with

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

198

1 Roger on a pretty regular basis. And yesterday afternoon 2 he assured me that he -- as a matter of fact, he asked 3 that I assure you that there is no down time. There has 4 not been any failure or affiliation to a failure with 5 these products being installed.

6 CHAIRPERSON LLOYD: Thank you.
7 MR. FORLINES: Thanks again for your time.
8 CHAIRPERSON LLOYD: We have to have Greg Valsek
9 and Chris Brown, then we're going to take a break. I know
10 both of these gentlemen have time constraints, so we'll

11 take them out of order.

MR. VLASEK: Thank you very much, Chairman Lloyd
and members of the Board. I'm Greg Vlasek with the
California Natural Gas Vehicle Coalition.

15 There's a lot to like and a lot of hard work 16 that's gone into these proposed guidelines. We have one 17 key issue to bring before you today and urge you to change it, and that is the \$15 million carve out for the 18 19 International diesel engines that don't meet the 2.5 gram NOx standard. And you've heard a lot about that. You're 20 going to hear more about it, so I don't want to belabor 21 22 too much, but I do have a couple of key points to make. 23 I'm sure the staff has told you that there are currently natural gas engines certified to the .01 PM 24 25 standard. So this is not a case where necessarily natural

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

199

1 gas engines aren't going to be there. In fact, they're 2 already there. They're just not available for the school 3 bus market. There are four engines certified to .01 PM as 4 well as to the 2.5 NOx standard. So it would meet both of 5 the criteria that staff has set up to get funding in the 6 program.

7 The question is do you really, really mean to 8 carve out the money just for diesel, because that is 9 clearly not a fuel neutral policy. There's a bus right 10 outside the building here, there's actually two, a CNG bus 11 that meets 2.5. There's a propane bus that meets -- it's 12 actually not even required to certify to low PM standard, 13 because it's a gasoline derived engine from IMPCO.

So in addition to the four engines diesel-derived 14 15 engines certified on natural gas, to the very, very, very 16 low PM level, you have some other ones that are gasoline 17 derived engines, that are available for school buses today. And they, because of the way the standards are set 18 19 up, they are so low in PM that ARB doesn't even really test for the PM when they go through the emissions testing 20 21 program.

The message you send if you give this whole \$15 million to International for their Green Diesel technology to the other engine manufacturers that serve the market, which include Cummins, Detroit Diesel, IMPCO, Baytech and

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

200

so on, is that you're carving out the money for diesel. 1 It's not because you really want the PM reductions, okay. 2 3 You're going to hear from at least one manufacturer today who is going to, or plans to, hopes to 4 develop their natural gas engine to meet an extremely low 5 NOx standard and the .01 PM in the same timeframe as the 6 7 International Green Diesel engine is going to be 8 available. Do you really want to tell that manufacturer 9 don't bother because you can't get any share of this \$15 10 million that's earmarked for International Green Diesel?

11 International was just up here and they said they welcome the competition. If that's true -- I think what 12 13 they meant was we welcome competition from other diesel 14 engine manufacturers of diesel engines. But if they 15 really welcome competition and if you all really want to 16 be fair and develop a market that's fair and encourages 17 different technologies to come and try and get the absolute cleanest products into the marketplace for school 18 19 children and transit buses and everyone else, then you really ought to be setting this up as performance 20 21 standards.

22 Keep the \$25 million pot with the 2.5 gram NOx 23 cap for that part and keep a \$15 million pot for .01 PM, 24 and then throw it open and let everybody play. That would 25 be the fair way to do it, but that's not the way staff has

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

201

1 proposed it today, okay. You're going to hear a lot more about that. 2 Thank you for the opportunity to speak and that's all I 3 4 have unless you have any questions. 5 CHAIRPERSON LLOYD: Thanks, Greg. Any questions? I know we'll hear some more. 6 7 Thank you. MR. BROWN: I'm Chris Brown. I'm with Mendocino 8 9 Air Quality. Thank you for taking me out of order. 10 CHAIRPERSON LLOYD: What is the note I've got,

11 that you can't work more than 12 hours a day. You can't 12 get paid for more than 12 hours a day.

MR. BROWN: Actually, I'm not supposed to be driving a county vehicle for insurance reasons more than 12 hours a day, or after being up for more than 12 hours. So I'm going to greatly abbreviate my

17 presentation.

18 CHAIRPERSON LLOYD: We suggest that you take a 19 nap and then --

20 (Laughter.)

21 MR. BROWN: There were times today where I was 22 thinking about that. I'm going to greatly abbreviate my 23 presentation to everyone's enjoyment, I'm sure.

24 You do have a copy of a letter from our board 25 directed to yourselves, which is dated last month. And

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

202

there is also a copy of my presentation you should have all gotten. One thing on the letter from our board, at the time I was operating under the information I had received at the incentive implementation manager's meeting that the split was going to be a 50 percent population split and a 50 percent needs-base split, specifically what is your pre-1977 school bus fleet.

8 (Thereupon an overhead presentation was
9 presented as follows.)
10 MR. BROWN: With that in mind, here's some of our

11 pre-1977 school bus fleet. That is a 1968 Ford bus 12 powered by gasoline. It would be eligible. With staff's 13 help, we were able to include gasoline into it. There are 14 two gasoline buses that I know of for sure in Mendocino 15 County that are still in daily service. And I just saw a 16 third one yesterday. And I quickly wrote down the bus 17 number and I'm going to research that as well.

The particular bus is 1968. It's got more than 300,000 miles on it. It has absolutely no emissions devices other than a PCV valve and a PCV system. It has very high emissions of benzene, I can almost guarantee you. I don't need to go into the issues of what benzene will do. The particular bus is at the Willets Unified School District. As I said, it's in daily service.

25 And what I'd like to point out is Willets Unified

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

203

is my third largest school district. I have 11 districts 1 in my county. They do not have on-site refueling. They 2 have to buy their fuel from a retail establishment. Their 3 4 district, back in the early nineties, when they had on-site refueling, said, you know, there's a lot of 5 liability, there's a lot of environmental concern, and a 6 lot of maintenance that goes with aboveground and 7 8 underground tanks, so we want to take those tanks out and 9 we will rely on the market to provide our fuel. 10 They are not large enough -- they don't have the

11 space to put that facility back. So really they can't 12 promise ARB that they're going to take low sulfur diesel, 13 because they are contingent on what's going to be sold 14 down the street at the two dealers in town.

15 And that is my third largest school district. Ι 16 have seven others that are much smaller. And also my 17 second largest school district, which is in the City of Fort Bragg on the coast. Second largest school district 18 19 in the county does not have natural gas service anywhere within their boundaries. And so despite what you hear 20 about natural gas, that's not an option for them. The 21 22 option that's available for them in terms of a straight traditional alternative fuel is propane. And I'm glad to 23 24 see that propane bus out there, again, today. I should 25 take it to A-Z Bus Sales, I have a couple people who would

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

204

1 like me to drive it back for them.

2 But that's not going -- CNG is not going to be an option for us. And so the diesel does have to stay part 3 4 of the equation. Regardless of what standards you set for it, diesel has to be an option, because you're looking at 5 11 grams per brake horsepower hour on a lot of these older 6 7 diesel engines. And despite what staff says, I would take 8 great exception to the idea that a 1987 engine is just as 9 clean as a 1967 engine. That's just not true.

10

The miles alone change the emission factors. And

11 if we went out there and checked those vehicles out, I 12 guarantee you you'd see a 1967 two-stroke is going to have 13 a lot worse emissions than a 1987. Now, what the 14 standards might have been may be different, but the real 15 world, there is a different emissions factor involved 16 there. And I have those engines. I have a lot of those 17 two-strokes.

18 CHAIRPERSON LLOYD: Chris, three minutes, what 19 can we do for you?

20 MR. BROWN: Real quick, I'd like to point out two 21 things. One is a document, this is from the Legislative 22 Analyst's Office, dated January of this year. And it 23 states, "Older school bus replacement program." I can 24 give a copy of this to staff. I didn't provide copies for 25 you. "Governor proposes a new \$50 million older school

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

205

1 bus replacement program to be administered by ARB.
2 According to the budget," and, again, this is from the
3 Legislative Analyst's Office, "the intent of this program
4 is to provide grants to school districts to replace
5 pre-1977 buses with safe clean alternative fuel buses."

6 The 1987 number has been pulled out of the air by 7 staff. And I understand that that is a cutoff point for 8 diesel emissions. And I understand that there's a lot of 9 districts with newer buses that want to get those buses 10 replaced. I think that the Board should take the position

that they want to get pre-1977 buses off the road before 11 any pre-1987 bus gets taken off the road. The emissions 12 13 factors are much greater for those older buses. And I'd also like to point out a statement made 14 15 by the Governor. 16 CHAIRPERSON LLOYD: Is this the last one? 17 MR. BROWN: I will have -- actually, if we could 18 switch to the last slide. 19 --000--20 MR. BROWN: But the statement made by the 21 Governor is, "One of the reasons I ran for Governor is 22 because I wanted to help every child in California, 23 regardless of race, gender or geography, live up to their 24 God-given potential." And to me that includes breathing 25 clean air. And funding really should be based on need,

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

206

not population. There's plenty of programs where the
 Board has said it's based on need and that it's benefited
 the larger districts, particularly South Coast, and that
 includes CMAC funding.

5 Our district does not get CMAC funding. We 6 believe we don't have an ozone problem. Our children are 7 exposed to toxics from the buses. We have the same type 8 of problems as anyone else, even older buses.

9 The other points are in my presentation, and I 10 encourage you to take a look at that and read the letter 11 from our board addressed to all of you.

12 Thank you.

CHAIRPERSON LLOYD: Thank you very much. 13 Any questions? 14 Thank you. We're going to take a 10-minute 15 16 break. The court reporter needs a break. 17 (Thereupon a brief recess was taken.) CHAIRPERSON LLOYD: I'd like to continue and I 18 19 understand there's some time constraints, so I'm going to call Paul DeLong from Deere Power Systems. 20 21 MR. DeLONG: Shall we wait till everybody is 22 here? 23 BOARD MEMBER BURKE: No, they can hear you in the 24 back. CHAIRPERSON LLOYD: Yeah, they can hear in the 25

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

207

1 back.

2 MR. DeLONG: Good afternoon. My name is Paul 3 DeLong. I'm manager of Natural Gas Engines for the Deere 4 Power Systems Group. I appreciate the Board giving us the 5 opportunity to express our gratitude for the particular 6 program, because it will help our natural gas engine 7 program.

8 We generally support the program. We believe it 9 will reduce the exposure of school children to exhaust 10 emissions. And we do believe that it is a very good 11 program.

12 There are some disturbing comments that have been 13 made in the staff report and in the other comments by the 14 staff that natural gas engines do not have the capability 15 or do not have the capability to meet the emission levels 16 of clean diesel as far as particulate matter.

We do have an executive order from CARB for an engine that's certified at .01 gram particulate and 1.8 gram NOx. That does not happen to be on the web site yet, but it is an engine that we can do for school buses and it is a capable engine.

You do have my written comments. We also mention in there that by this time next year, we will be down around 1.5 gram NOx with a new control system that we will be putting on the engine. So those capabilities are

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

208

1 there.

2 CHAIRPERSON LLOYD: When was the executive order 3 written?

4 MR. DeLONG: I believe it was July, July or 5 August, somewhere in that neighborhood. It just isn't on 6 the web site yet.

7 The other concern we have is the 8 misrepresentation of costs of natural gas engine versus a 9 diesel. As far as the emission goes, you have a 10 presentation of mine. If you look at page four, you'll 11 see that our certified engine 1.8 gram NOx, .01 gram 12 particulate and the clean diesel engine against the 13 regulations.

I'm not going to go through all of those slides, 14 15 but as you go through to page four, you can see that to 16 reduce the particulate matter on a diesel, you have to 17 actually increase the particulates and then put a trap on it to reduce it to get the NOx down. That trap costs 18 19 between \$6,000 and \$7,000 on the high side for installed. We've reduced the particulates with a simple 20 oxidation catalyst at approximately a high side of a 21 22 \$1,000 installed. There is a method to get to low NOx on

23 a diesel engine. It's being tested in Europe and some
24 tests are running in the United States, that's injecting

25 selective catalyst reduction. Those units are low volume,

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

209

just as a natural gas engine is and they run around 1 \$25,000 installed. They were 35, they're coming down. 2 3 That system is being used in transit buses in 4 Europe. So if you compare the costs, if you go to page six, you can see for comparable exhaust emissions, the 5 cost up for a natural gas school bus is approximately 6 \$26,000, with the tanks, the engine costs and a simple 7 8 oxidation catalyst.

9 You can see that with diesel today, that engine 10 would be a cost up of \$32,000 for that vehicle. So

11 actually there's some money left over at the same emission level for a little infrastructure. So we think these 12 13 costs are being misrepresented and the emission capabilities of natural gas and other alternative fuels 14 15 are also being misrepresented. 16 Again, we'd like to express our gratitude for 17 allowing us to make our comments and I will entertain any questions at this time. 18 19 CHAIRPERSON LLOYD: Now, Deere makes both diesel 20 and natural gas engines? 21 MR. DeLONG: That's correct, but we don't make 22 any on-road diesel. All our diesels are off-road. CHAIRPERSON LLOYD: Professor Friedman. 23 24 BOARD MEMBER HUGH FRIEDMAN: I don't like the 25 word misrepresented. I don't mind in error or erroneous, PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 210 1 but misrepresented to me suggests somebody is deliberately misstating with the intent to deceive or confuse. Who is 2 it that you feel has misrepresented the costs? 3 4 MR. DeLONG: I'm saying some of the comments --

the costs where they're saying that the cost is higher, 33 5 6 percent?

7 BOARD MEMBER HUGH FRIEDMAN: I heard that from 8 the staff. I'd like the staff to have the opportunity to 9 respond.

10

The figures we were presented indicated that the

11 cost of a natural gas bus was somewhere about \$30,000 more 12 -- 130 in that range versus a 100 or so for the diesel, 13 about 30 percent higher overall cost. The figures you're 14 showing here don't include the bus.

15 MR. DeLONG: The bus would be the same for both 16 of them; is that correct? I mean, the bus would be the 17 same as the chassis.

BOARD MEMBER HUGH FRIEDMAN: Well, I don't know you're assuming that.

20 BOARD MEMBER WILLIAM FRIEDMAN: Well, you don't 21 have to buy all the diesel buses.

BOARD MEMBER RIORDAN: Mr. Cackette, I think, isgoing to answer that.

24 BOARD MEMBER HUGH FRIEDMAN: Yeah, I was waiting 25 for the staff. They were conferring.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

211

DEPUTY EXECUTIVE OFFICER CACKETTE: The numbers 1 that we used in the staff report are for the current two 2 and a half gram like natural gas bus, which is on the 3 State bid, you can go procure one for that price, versus 4 the trap equipped Green Diesel bus, which has also been 5 quoted on the State bid list. So we know what the two 6 cost today, but they're at those different NOx levels. 7 8 What this chart on page six shows is what would

9 it take to get the diesel bus's NOx down from three to 10 two. In that case, the witness says it's going to take an 11 SThatR system at the cost of \$25 thousand. But that's not 12 what we think any of the manufacturers are doing for 2002 13 to get the numbers down. They're all using what was said 14 in the previous testimony, EGR, which has a cost that's 15 more in the order of \$1,000 than \$25,000.

16 BOARD MEMBER HUGH FRIEDMAN: So you're 17 presenting --

DEPUTY EXECUTIVE OFFICER CACKETTE: This comparison, I don't think is one that would, at least for a majority of the manufacturers wouldn't be what we think will happen in 2002 to put them on the same two and a half gram level playing field.

BOARD MEMBER HUGH FRIEDMAN: So you're presenting an assumed bus that doesn't yet -- diesel bus that doesn't exist?

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

212

MR. DeLONG: I'm presenting a diesel bus that does exist in Europe and that system that does work in Europe, just as we're presenting traps that are being tested in Europe and tested in the United States. And I'm also presenting data from two consultants, Southwest Research and AVL, that both attest that this is the most viable alternative today. And that also the natural gas engines --

9 BOARD MEMBER HUGH FRIEDMAN: But you don't make 10 that? 11

MR. DeLONG: We don't make that.

12 BOARD MEMBER HUGH FRIEDMAN: You're hot offering 13 that. You're saying others ought to or somebody ought to 14 be doing, but you're not?

MR. DeLONG: I'm saying that to say that the cost of a natural gas engine or bus is that much higher than a diesel, we're comparing apples to oranges here, when we're talking different emission levels, because we're --

BOARD MEMBER HUGH FRIEDMAN: It sounds like you're like comparing European and American, what's presently available here, which is what the staff has explained they've compared and you're comparing something very different. So it is apples and oranges.

24 MR. DeLONG: It is apples and oranges, because we 25 are giving you -- offering you an opportunity to use an

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

213

1 engine that is a low NOx and .01 gram particulate that 2 meets two gram NOx standard and .01 gram particulate. 3 CHAIRPERSON LLOYD: So you can buy those today. 4 You're offering that, you're saying, with the oxygen 5 catalyst on there?

6 MR. DeLONG: That engine was certified in year 7 2000. We can make it available for these school buses by 8 July 1st.

9 CHAIRPERSON LLOYD: Mr. McKinnon.
10 BOARD MEMBER McKINNON: And you are clear, we've

11 budgeted \$25 million for buying your type of --

12 MR. DeLONG: I'm just saying that there was some 13 misrepresentation on what a natural gas engine can do as far as being at .01 gram particulate today. There's also 14 15 some propane engines also certified at that level by CARB 16 at .01 gram particulate, alt fuels.

17 I'm also saying that the costs that the latest 18 school bus study cost out -- I was at a meeting at South 19 Coast yesterday for \$25 thousand dollars cost out, not 30. It's coming down. Tanks are getting less expensive and 20 21 we're driving the engines down as well.

22 BOARD MEMBER McKINNON: I don't know if you heard my opening remarks, but my starting point was zero for CNG 23 24 and zero for Green Diesel. It was all retrofit. That's 25 where I started. And I think you're at \$25 million right

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

1

214

now. 2 MR. DeLONG: Okay, any other questions? CHAIRPERSON LLOYD: Thank you very much. 3 4 MR. DeLONG: Thank you. 5 CHAIRPERSON LLOYD: I think we have Michael 6 Applegate. 7 MR. APPLEGATE: Good afternoon. My name is 8 Michael Applegate, and I'm the owner of Applegate Dredge 9 Company and the president-elect of the California Trucking 10 Association. My company is based here in the Sacramento

11 area.

12 We run a fleet of 50 trucks, ten percent of which 13 are powered by International's new Green Diesel 14 technology. I'm a small business owner. And I'm 15 committed to two things. First, I work hard to protect 16 the jobs of my 130 employees. I know the families depend 17 on me to keep them working.

18 Second, I believe it's essential to do my part to 19 protect the environment. I consider myself somewhat 20 unique. As a trucker, I purchase and operate heavy-duty 21 diesel trucks. And I'm constantly searching and 22 experimenting with cleaner fuels and cleaner engines. 23 I've run aqueous diesel mixtures. I've run CNG. I've had 24 magnets on my fuel lines. I've run fuel heaters. I've 25 chemically treated air to cool it. I take some pride in

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

215

operating some of the cleanest trucks on the road today.
 I can tell you today that diesel users will help
 us reach the Federal Clean Air Act health-based standards
 for ozone and for PM, because of Green Diesel technology.
 That is why this year we invested in five Green Diesel
 technology powered trucks.

Diesel engines have the performance, fuel
efficiency and reliability that I need to operate my
business successfully. Not only do they cost less than
the exotic experimental engines out there, but we can

11 always count on them to run safely and run for decades.

12 The new Green Diesel technology trucks run as 13 well as any of my traditional diesel engines and without the exhaust that we commonly associate with diesel. 14 15 They're pretty remarkable. It would be difficult to have 16 to choose between lower priced vehicles and a cleaner 17 environment. Decisions like that would force us to weigh the long-term benefits of a cleaner planet with difficult 18 19 or impossible economic costs of some of the more exotic 20 type of technologies.

I'm a firm believer in caring for our environment. And as a business owner, I understand the dilemma too well. With the advent of International's Green Diesel technology we're spared from having to make that difficult decision.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

216

1 We can make the right economic choice and right 2 environmental decision at the same time now. As I can 3 attest, clean diesel is truly a win-win situation. Clean 4 diesel provides us with a cleaner environment at a 5 practical cost and eliminates soot by over 90 percent. 6 As your staff report illustrates, it was referred 7 to earlier on page 35, "Dollar for dollar intermediate

8 diesel buses will result in far fewer pollutants than
9 natural gas powered buses."

10

As the State agency responsible for clean air, I

11 can see no better outcome than the cleanest air for the 12 fewest taxpayer dollars. In fact, your staff report shows 13 that if the State spent \$30 million on the diesel buses, 14 we would have 24 tons less particulates in the air and 172 15 tons less NOx than if the State spent the 30 million on 16 natural gas buses.

17 That seems like a no-brainer to me. In fact, I 18 don't know why we don't spend the whole 50 million bucks 19 on clean diesel. It's a much better deal for the 20 taxpayers and better health -- and better health benefit 21 for school children.

The trucking industry's position is to put all of the money where the most ozone and particulate emissions can be reduced for the least cost. That means using clean diesel and practical diesel and diesel retrofit

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

217

1 technologies.

2 One final comment, the technology works on all 3 diesel engines. It's not just for International's diesel 4 engines. I can put any particulate trap on any of my 5 diesel engines in conjunction with ultra-low sulfur diesel 6 fuel and have the same benefit, emissions benefit, that we 7 get from today's Green Diesel technology.

8 CHAIRPERSON LLOYD: Thank you.
9 MR. APPLEGATE: Any questions?
10 CHAIRPERSON LLOYD: Thank you.

11 Now, we've got Nina Young, Peter Whittingham and 12 Ted Holcombe.

MS. YOUNG: Good afternoon, Chairman Lloyd and 13 14 members of the Board. Thank you for taking me out of 15 order, I appreciate that. 16 My name is Nina Young. I'm the Director of 17 Purchasing Contracts and facilities for the Orange County 18 Department of Education. I'm a member of the South Coast 19 Clean Air Partnership and a recent appointee to the South Coast Air Quality Management District's Adopt a School 20 21 Board District. 22 I'm here --CHAIRPERSON LLOYD: Adopt a School Board? 23

24 MS. YOUNG: Excuse me, Adopt a School Bus Board. 25 (Laughter.)

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

218

CHAIRPERSON LLOYD: I don't think Dr. Burke wants
 to adopt anymore school boards.

3 (Laughter.)

4 MS. YOUNG: I'm giving your board a new name, Dr.5 Burke.

I'm here today representing Orange County School
Districts regarding the staff recommendation for the
proposed implementation of the low emission school bus
program. The Orange County Department of Education and
the school districts within Orange County support the

staff recommendations for the allocation of the \$15 11 million for Green Diesel, the \$25 million for CNG and the 12 13 \$10 million for particulate traps with additional language that after the application process any remaining funds in 14 15 the areas of the split be rolled over to supplement 16 shortfalls in the other approved technologies. We would 17 hope that this would not have to come back to the Board to 18 expedite the process.

Additionally, we encourage the Board to eliminate the school district match. The Governor's proposal did not require a match. And school districts were not informed of a potential match when they were developing budgets last spring and prior to local board adoptions the past summer.

25 With school district budgets as tight as they are

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

219

1 in the areas of unrestricted funds, it is an unrealistic 2 expectation that school districts would be able to find 3 the match required in their budgets. If our priority is 4 truly healthy children, safe transportation and clean air, 5 let's not prohibit participation due to unnecessary 6 financial restraints.

7 I encourage you to continue to work with the 8 educational community and local districts to get the 9 results we are all trying to achieve. Your staff has done 10 a really good job at the public hearings that they held 11 this past fall. And they listened to the districts and 12 their concerns with regards to the many issues that were 13 raised.

We would encourage the Board to seek continuing funding beginning with additional monies that we anticipate will be a surplus in the State's General Fund this year and a minimum of \$100 million allocated annually until all pre-1987 buses have been either replaced or retrofitted.

In closing, we support complete fuel neutrality and support the Board's concern in that area. We respectfully request you to allow school districts to choose the clean bus technology that not only meets State guidelines, but also is economically best for their districts.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

220

1 CHAIRPERSON LLOYD: Thank you. 2 MS. YOUNG: Thank you very much. 3 CHAIRPERSON LLOYD: Will you be eligible for 4 funding from the South Coast AQMD if, in fact, you get 5 that match so it wouldn't have to come out of your funds? 6 MS. YOUNG: Possibly, I'm not sure. Are you talking about with regards to the Adopt A School Bus 7 8 Program? 9 CHAIRPERSON LLOYD: No. In terms of the match,

9 CHAIRPERSON LLOYD: No. In terms of the match 10 the point is if you couldn't afford the match there, 11 presumably we'd send a fair amount of money down to South 12 Coast, and maybe they could chip in there.

MS. YOUNG: That's a possibility. But the basin being as big as it is, with the number of buses there are, there's not going to be enough money to go around.

16 CHAIRPERSON LLOYD: Okay.

17BOARD MEMBER CALHOUN: Let's me ask the staff a18question. Ms. Young raised the same question that one of19the other school districts raised. Is this generally true20of the match problem for school districts in general?21EXECUTIVE DIRECTOR KENNY: We have heard from a

number of school districts that prefer that the Board eliminate the match. The difficulty there is that we do have a limited pot of money here. We do have 24,000 school buses statewide and so we know that, in fact, the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

221

1 money will be oversubscribed.

2 By having the match, we thought it was a reasonable way of essentially extending the money, getting 3 4 more new school buses into the fleet. I think one issue that she does raise, that we have to look at, is 5 essentially the fact that we are in the midst of their 6 7 budget year, and how do we essentially provide some level 8 of flexibility for them to provide that match. 9 But, again, we think the match actually does

10 provide benefits in terms of additional buses and

11 additional health benefits.

12 CHAIRPERSON LLOYD: Dr. Burke.

BOARD MEMBER BURKE: I wanted to say on this maybe what we could do is make the matching portion in the next fiscal year, so, you know, they give as a commitment to do it, then we can work out an arrangement with the bus company, so that if they want to buy it in 2001 they can pay them in 2002.

EXECUTIVE DIRECTOR KENNY: Well, fortunately we may actually have that working for us, because generally what happens is that it does take at least some period of time to get the bus once an order is put in for it. And so, you know, we are in a situation which the fiscal year would start and there would be an opportunity to essentially, you know, budget monies for it prior probably

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

222

1 to the actual delivery of the bus.

2 So I think there's a way of potentially working 3 the particular issue out. And that's why, you know, we 4 were looking at at least maintaining the match and pulling 5 some additional buses in.

6 CHAIRPERSON LLOYD: Yes, Mr. McKinnon.
7 BOARD MEMBER McKINNON: Yeah. Kind of on the
8 subject, I sort of -- I'm sympathetic to this too. If it
9 was not in the budget, I'm kind of worried about it. I
10 want to stretch it and get as much done as we can. But if

it wasn't in the budget, what worries me is that if we do 11 a population-based test and you don't have to match this 12 13 year, but then we know where it's all going and the 14 Mendocino that was just here doesn't get addressed. 15 And so if we're going to change the match 16 question this year and go to matches next year, we have to 17 think about how we equitably distribute the buses. 18 BOARD MEMBER BURKE: I wasn't saying -- you know, 19 what I was saying was, you know, give them a little credit, demand it this year, but when you pay the match 20 21 can be adjusted. 22 BOARD MEMBER McKINNON: Got it. 23 BOARD MEMBER RIORDAN: So they would put it in their next budget year, because realistically you're not 24 25 going to take delivery on probably these school buses

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

223

1 maybe not in the year that you ordered them. I don't know 2 how fast those buses come on line, but I can tell you some 3 big equipment items, fire engines, you order them one year 4 and they don't arrive until another year out.

5 BOARD MEMBER McKINNON: Thank you. That 6 clarified it, because I think, generally, I felt we're not 7 the school bus buying agency of California. That's not 8 our job. And so they should cost something. But if we've 9 been unfair vis-a-vis the budget, maybe we straighten it 10 out. But that clarified it a whole lot for me. 11 CHAIRPERSON LLOYD: Thank you very much. 12 Peter Whittingham, Ted Holcombe, Mike Murray. 13 MR. WHITTINGHAM: Good afternoon, Chairman Lloyd and Board members. My name is Peter Whittingham. I'm 14 15 speaking today on behalf of Cummins Incorporated. As you 16 may be aware, Cummins is both the world's largest producer 17 of commercial engines over 50 horsepower and offers the largest portfolio of low emission and alternative fuel 18 19 vehicles of any manufacturer.

20 Cummins greatly appreciates the State's effort to 21 protect the health of our young people through this 22 ambitious and unprecedented program, a commitment that we 23 shared and have been working towards as well. However, we 24 do believe that the proposal before you deviates from your 25 Board's long-standing commitment to flexibility through

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

224

1 true technology neutrality.

It is our understanding, as has been mentioned here previously, that only one manufacturer can currently provide a three gram brake horsepower hour NOx level diesel engine. So we share the concerns voiced by others that this approach presents school districts statewide with a lack of appropriate options.

8 Cummins proposes that your Board consider the 9 following, in conjunction with the current staff proposal. 10 One, to push back the proposed date whereby districts must 11 take receipt of new buses to June 30th, 2003.

12 California's procurement guidelines call for a period of 13 up to two years between the time funding agreements are 14 signed to initiate procurement and the actual delivery of 15 the product. Cummins, and quite possibly other engine 16 manufacturers, will be offering diesel school bus engines 17 certified to 2.5 grams brake horsepower hour NOx level in 18 the 2002/2003 timeframe.

19 Given that if your Board were to make no
20 revisions to the proposal, actually delivery of these
21 buses will still take up to 18 months from the date of
22 purchase. We believe this amendment will provide greater
23 flexibility to school district administrators and may
24 yield even greater emissions reductions.

25 Two, remove all references to technology as it

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

225

1 relates to funding under the replacement program. This
2 allows the agency to provide funding for either alternate
3 fuel or diesel where appropriate and compatible. That
4 would keep your Board in line with previous CARB
5 rulemaking efforts that emphasize a true technology
6 neutral approach.

7 The step in conjunction with the previous
8 amendment would also eliminate any potential concerns
9 regarding sole sourcing and provides incentives for
10 alternate fuel infrastructure development and procurement.

11 Though it's not directly related to the proposal before 12 you, we would urge your Board to enthusiastically pursue a 13 similar grant within the upcoming 2001/2002 State budget, 14 as you have mentioned previously.

While the funding allocated to this program is considerable, the 400 buses proposed to be replaced and the 1,500 buses proposed to be retrofitted, the value of the program represented only a small percentage of the more than 24,000 school buses statewide.

20 With nearly one-tenth, 2,250 of these buses 21 currently in operation of the pre-1977 variety, the need 22 for additional funding is obvious. Cummins stands ready 23 and committed today to work with you and other 24 stakeholders in achieving the goal.

25 In closing, we appreciate your primary commitment

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

226

1 to the health of the State's youngest residents as well as 2 the recognition of the real world constraints and 3 pressures facing both school boards and bus providers. We 4 thank you for your consideration. And I'd be happy to 5 answer any questions you may have.

6 CHAIRPERSON LLOYD: Thank you. Maybe I got it 7 wrong, but you're suggesting that we slow the program down 8 so competition can catch up?

9 MR. WHITTINGHAM: We're suggesting that you offer 10 school districts the opportunity to choose which engine

11 they would like to provide. If they choose to select a two and a half gram NOx diesel engine, that that 12 13 opportunity be provided to them. CHAIRPERSON LLOYD: But do you have a three-gram 14 15 engine at the moment? 16 MR. WHITTINGHAM: No. Cummins does not 17 manufacture a three-gram NOx. 18 CHAIRPERSON LLOYD: What about the particulates 19 when you're offering a 2.5 gram NOx, what's your particulate number? 20 21 MR. WHITTINGHAM: Cummins would be meeting the 22 particulate level of the program. CHAIRPERSON LLOYD: Which is? 23 24 MR. WHITTINGHAM: Well, for diesel you've got 25 .01.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

227

1 CHAIRPERSON LLOYD: Comments from staff? DEPUTY EXECUTIVE OFFICER CACKETTE: Just that, 2 you know, we thought there was pretty clear direction in 3 4 the program to try to get the money out and get the cleaner, safer buses on the road right away, and we'd have 5 6 to wait another year or more for these buses to come along compared to the ones that are available now. It just 7 8 seemed like it's better to put the energy into another 9 shot of money in the future budgets and get the money that 10 we do have now to get cleaner buses for the kids.

11 BOARD MEMBER ROBERTS: Allan.

12 CHAIRPERSON LLOYD: Supervisor Roberts.

13 BOARD MEMBER ROBERTS: I want to just pursue is 14 like going out to a car lot and buying a bus. Okay, there 15 is going to be some time involved here in the number of 16 buses you're talking about. There's going to be some 17 period of time the program is going to unfold over. I'm 18 kind of interested in what I'm hearing here, because what 19 I'm hearing is set the standard and let's figure out how 20 to meet the standard.

And I'm wondering under those -- if we were to do that, how that program unfolds as compared to how it might unfold if we were to adopt the 3.0 standard, which, I'll just tell you, bothers me right now, so I'm trying to figure out how we're going to make it work. And I'm not

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

228

sure that, I don't know what the time difference is,
 because realistically, you're not going to run out
 tomorrow and buy all these buses.

I mean they're not going to be delivered. You might buy them, but they're not going to be delivered for a long time. So somebody ought to be looking at it, because this is the first person I've heard that stood up and talked about diesel and saying that we can work with you on the standard, instead of compromising the standard, so that we have somebody that can place orders and we're 11 still going to wait for quite awhile before those buses
12 are being delivered.

I want staff to be thinking about this a little More, because this is the first time that I've heard anything that gives me a little bit of comfort on what we ought to be doing with respect to diesels, because I'm not going to support a 3.0 standard.

18 CHAIRPERSON LLOYD: I think --

MR. WHITTINGHAM: Can I speak to that? I appreciate Supervisor Roberts' comments. And we generally agree that given a, perhaps, six month difference in actual delivery, why compromise?

23 CHAIRPERSON LLOYD: I think there's a little bit 24 of a difference when you talk about setting standards and 25 whatnot. In this case this is not a regulatory program.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

229

We're trying to honor what the Governor wanted to do, get product on the road so that we can actually reduce the children's exposure to the diesel particulate as soon as possible.

5 And while you're saying maybe six months, and I 6 understand Supervisor Roberts where you're coming from, a 7 lot of this is, you know, it's expectations. So I think 8 the tough spot -- I'm delighted to see Cummins coming 9 forward also. And in this particular case moving forward, 10 we are looking at a time differential. Now, you're estimating six months. I'm not sure that we can guarantee that. Plus the fact that if we look forward and we're hoping that this is basically a drop in the bucket, that we're going to move ahead, clearly Cummins is going to be there for the longer term.

16 DEPUTY EXECUTIVE OFFICER CACKETTE: Just a 17 comment on the timing. Of course, natural gas engines are 18 certified now, so when you put in an order they have to 19 know whether they can get an engine for that bus. And the 20 answer would be yes, you can get one right now. And then 21 the lead time is just however long it takes for that 22 company to produce a bus.

The Green Diesel International engine is going to be certified in the Spring, so that would be first quarter of 2001.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

230

You'll have to ask the gentlemen from Cummins exactly when they plan on certifying their Green two and a half gram diesel. But, you know, from what I know, it's going to be not spring of '01, but it's going to be a year and half or so later.

6 So the timeframe -- you can't -- you know, you 7 can put an order in, but they can't build the bus until 8 the engine is certified, is produced and then goes in the 9 bus. So if he's talking about, you know, around the first 10 of '03 then that means you'd be getting buses sometime 11 late in '03 versus being able to get buses late in '01 12 right now. That would be the way we sort of understand 13 the timing.

BOARD MEMBER ROBERTS: I guess the issue, I mean 14 15 if it were six months and if you're telling me we're going 16 to put money in, the buses are going to be at 2.5 rather 17 than 3.0 and I'm going to look at the lifespan of those buses, I'd rather take a little bit more time in getting 18 19 those on the road and have the 2.5. There's no question about it, because I think you're going to make up that 20 savings real quick over those given years that you're 21 22 operating that kind of equipment.

23 DEPUTY EXECUTIVE OFFICER CACKETTE: We agree with 24 you, but I don't think -- the point is I don't think it's 25 six months.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

231

BOARD MEMBER ROBERTS: Well, that's what we need to -- he's saying it is and you're saying it's not, so maybe you guys can get together and come up with an answer. I don't know what it is.

5 BOARD MEMBER HUGH FRIEDMAN: Well, why don't you6 ask him and let's get an answer.

7 MR. WHITTINGHAM: I do know that Mr. Cackette has 8 conversations with Tina Voyavich of Cummins regarding the 9 product outline and when that would become available. 10 Cummins is under the Consent Decree requirements to have a 11 two and a half gram NOx engine by October of 2002
12 providing different platforms in that timeframe and then
13 only amounts subsequent to that.

14 CHAIRPERSON LLOYD: It's about two years away. 15 This is probably not the most adequate forum to 16 discuss product rollout. But again, they are in the 17 Consent Decree and would be providing those in accordance 18 with the EPA guidelines.

19 CHAIRPERSON LLOYD: Professor Friedman.
20 BOARD MEMBER HUGH FRIEDMAN: Well, yeah, I wish
21 in a perfect world diesel would be as clean, in all
22 respects, as CNG. And we would have 2.5 or less. And I
23 don't know if you were here when International trucks
24 spoke. They, in their plan, were going to have 2.5 or
25 less in 2004.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

232

But I do think we have an obligation to allocate 1 funds that have been appropriated so that they can be 2 spent for these purposes as soon as possible and get buses 3 on the road that are going to, in any case, dramatically 4 reduce emissions to the extent they replace existing very 5 old polluting buses, which is where most of the money is 6 7 going to go or to the extent that they retrofit the 8 existing polluting buses.

9 We're going to achieve good reductions from the 10 300 to 400 units that we're able to cover here. And my 11 hope is that we can get more money for next year. And 12 assuming it works, we'll go through the same kind of 13 process and maybe by then we'll have Cummins accelerating 14 ahead of that Consent Decree. We may have International. 15 We may find there are competitive forces at work that 16 greatly facilitate our struggle here.

And it is true, when these investments are made, they're long haul, they're long-term, and I guess they're not easily then retrofitted again or reduced from three to two and half and so forth.

21 But it's not a perfect world. And sometimes, to 22 me, the worst thing we can do is delay unduly. And I 23 think we have an obligation to make a decision, however we 24 wish it might be a little easier.

25 BOARD MEMBER ROBERTS: Could I -- I don't want to

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

233

1 rebut, but I want to -- I'm not --

2 BOARD MEMBER HUGH FRIEDMAN: I invite it. 3 BOARD MEMBER ROBERTS: -- necessarily suggesting 4 that we delay, but, again, what's bothering me here is this dual standards. And I've been on this Board for a 5 fair number of years now, and it seems like since day one 6 we've been setting dual standards for diesel. I mean 7 8 diesel has, in spite of the way the world has changed, 9 diesel has been kind of ignoring the reality. It wasn't 10 our staff that said we ought to declare diesel a toxic. I

11 mean, there were a few members of this Board that decided 12 to do that. That was not the staff recommendation, and 13 we're all, you know, it's so accepted today.

It concerns me that there's a different standard 14 15 there, but I mean we could still get the money out in the 16 buses. Just as a for instance, instead of having the 15 17 million there with a different standard, you could have a single standard and say there's going to be 30 million or 18 19 35 million in that and you're going to put more in the retrofit, you can increase the retrofit. If you want to 20 have a real impact, increase the retrofit and you'll get 21 all the money out and you'll get buses and you'll take 22 care of this year, but you'll have one standard. 23 24 CHAIRPERSON LLOYD: The only comment I was

25 making, Supervisor, was that when you sit on the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

234

1 regulatory side, you usually give quite a bit of lead
2 time. We've got now 50 million which we need to dispense
3 over a very short period of time. Sometimes we don't have
4 the same luxury or different -- slightly different
5 viewpoint why we're trying to maybe deviate that from the
6 standard procedure.

7 At least during most of the nineties, we didn't 8 have the luxury of giving money way, certainly \$50 million 9 away. The Moyer monies were, I guess, starting up part of 10 that program. But I hear you.

BOARD MEMBER HUGH FRIEDMAN: If I could just add my concern, though, with that is if you have a single 12 13 standard and it is below anything that is presently achievable, other than by natural gas, then you don't have 14 15 a double standard, you have a single standard. And those 16 districts who aren't for a variety of reasons in a 17 position to take natural gas, they don't have the infrastructure, they can't go down the street and buy it, 18 19 what are they to do except retrofit? And they can't replace the old buses with anything. 20

21 And so as a practical necessity, we've taken the 22 next best thing, which is going to achieve great 23 reductions, at least as I see what the staff is proposing, and we're going to take a slight variance from the 24 25 standard that we did establish and that we wish -- and

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

235

this is what I meant by a perfect world, that we wish we 1 could insist on, but we don't have the time, unless we 2 want to wait for technology to catch up. And I don't know 3 4 what we do to these small rural districts, small ones. 5 CHAIRPERSON LLOYD: Yes. Mr. McKinnon. 6 BOARD MEMBER McKINNON: I guess I also want to be careful. I think that we're moving very strongly towards 7 8 changing the way diesel affects our air, I think, if you 9 look at the direction we've been headed in. And, yeah, 10 maybe it appears that we're being more flexible than we

11

11 should be in the early going, but it seems to me some of 12 it is trying to help -- I mean, I have a real problem 13 punishing a manufacturer that wasn't forced to do 14 something and planned their production a particular way 15 when they weren't forced.

16 And I also think that low sulfur diesel was 17 produced and created without there being a huge fight and battle in the State, you know. Things are moving in place 18 19 that we can do something significant here. And if we have a little bit of flexibility, I'm willing, you know, to 20 take the criticism. I think somebody in the LA Times 21 called us sell outs last week. And I was a little 22 offended by it, because my position has always been we 23 24 should retrofit. I've never said we ought to do, you 25 know, 100 percent CNG and fix 300 buses and leave, you

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

236

1 know, 23,600 of them unfixed, which is the other extreme 2 view.

3 So I think you're right to hold us to being 4 staunch about the numbers. And if we're not, we're not 5 because we're consciously trying to move. And I, for me, 6 that's where it's coming from, is that I think we're 7 moving diesel and it's worth some flexibility. 8 CHAIRPERSON LLOYD: Thank you, Peter. You

9 stimulated some good discussion.

MR. WHITTINGHAM: Thank you.

10

CHAIRPERSON LLOYD: We have Ted Holcombe, Mike
 Murray, Jim O'Connell, Dave Smith, Ed Manning.

MR. HOLCOMBE: Hello. I'm Ted Holcombe with PG&E. Let me know if it starts to squeak here. Is that better?

Okay. First of all, there are times when I'm gladder to be here than over there. This might be one of them. But you have a delicate balancing act to do, and I appreciate the time and effort you're putting into it.

I do sympathize with the idea that I'd rather see money for diesels going to retrofits than to new diesels that will be around for 20 years. I'm a little concerned that some of those retrofits then might lead to repowering the engine, in essence, and keeping them for 20 years, So it's not a done deal that that's a win.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

237

I'm a little concerned, too, about the concept of, you know, creating a special standard for the class of vehicles. The 2.5 standard is not an alternative fuel standard only. It's basically available to conventional fuels too, is it not? I guess it is. So that a diesel could meet that. The standard has been there for five years. They could have planned to meet it. They just didn't want to.

9 One of the things that makes the 3.0 real 10 reasonable is the staff's analysis, which says that, gee 11 whiz, you're going to actually reduce emissions if you do 12 that. But please recognize the footnotes, certification 13 emissions, and not actual certification emissions, maximum 14 allowed certification emissions.

15 If you change that number to 3.3 as the maximum 16 allowed, and you're still certified to three, that 17 equation would change just because of where you put the certification levels. If you drop the 2.5 down to 1.8, it 18 19 would change again. Look at the actual in-use numbers. 20 And when you look at them, look to see what's the 21 composition of the PM that comes out, how toxic is it, 22 what's the composition of the NOx that comes out, what's 23 the NO2 to NO ratio? NO2 causes more ozone, NO causes 24 less, or at least initially. I know it goes -- it's an 25 equation.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

238

CHAIRPERSON LLOYD: Be careful. 1 2 MR. HOLCOMBE: But there is still an initial effect. And that effect is what causes the highest 3 concentrations potentially, so it's something to think 4 about. 5 6 That's most of what I had to say. I did say 7 that --8 CHAIRPERSON LLOYD: Three minutes is good timing. 9 MR. HOLCOMBE: I'll let it end there. 10 CHAIRPERSON LLOYD: Could you just address the

11 price and availability of natural gas?

12 (Laughter.)

MR. HOLCOMBE: Well, you know, it's probably one of the things that PG&E doesn't want to brag about too much, but I think we still have some natural gas rates that are embodied in there. And just like electric rates, you can get them cheaper than the actual cost to us.

But seriously, it's always the law of supply and demand. And we have plenty of capacity to deliver natural gas. We have probably surplus capacity to deliver natural gas to California. And the pricing situation seems odd to me, but that may be reflective of our great success in bringing down SO2 levels on the east coast and by increasing natural gas, and also increased natural gas even here in California used for producing power.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

239

CHAIRPERSON LLOYD: What about the price? 1 MR. HOLCOMBE: The price will equalize out. It 2 will come back to where it was. 3 4 CHAIRPERSON LLOYD: What's the typical increase, percentagewise, that's all I'm looking at? 5 6 MR. HOLCOMBE: I'm not an expert in that and I really can't tell you precisely. 7 CHAIRPERSON LLOYD: Maybe Mr. Murray can answer. 8 9 MR. HOLCOMBE: Maybe Mr. Murray will know better 10 than I will. I don't keep track of that. I'm an

11 environmentalist. I'm not a gas pricer.

12 Sorry.

13 (Laughter.)

14 CHAIRPERSON LLOYD: Thank you. Mike Murray, Jim
15 O'Connell, Dave Smith, Ed Manning, and then Stephanie
16 Williams.

MR. MURRAY: Well, after Chairman Lloyd's questions, I'm not sure if I should tell you who I work for. But my name is Mike Murray and I work for Sempra Energy, which is the parent company of Southern California Gas Company and San Diego Gas and Electric.

And I can tell you, if this was about electric restructuring and natural gas issues, we would be here for a lot longer than the four or five hours we're going to be here today.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

240

But this isn't about that fortunately, and so I'll defer those questions to a later date. And I guarantee you, they're going to be debated at length by the best and the brightest in the state over the next 12 months.

6 I am kind of wearing two hats today. One, I'm 7 wearing a Sempra Energy and we did submit a number of 8 written comments to staff during the drafting of the 9 guidelines. And I want to thank the staff, because a 10 number of those comments were incorporated and we

appreciate their efforts in putting together the 11 quidelines documents. 12

We are also a member of a coalition called the 13 Clean Machine For Kids, which I believe you have a letter 14 15 from us today along with four bullet points. And it lists 16 the coalition members. They are a broad-based coalition 17 representing engine manufacturers, natural gas fuel providers, refueling station manufacturers and a number of 18 19 transit agencies. And I just want to briefly go over the four points, because a lot of it's been discussed today 20 and I want to really try to keep my comments to less than 21 22 a couple minutes.

23 One is we do believe that the NOx standard ought 24 to be kept at 2.5. I think that that's a fuel neutrality 25 issue. We believe that the standards should be set and

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

1

241

that everyone should be able to compete to those 2 standards. So we feel that that levels the playing field. In response to Board Member Friedman's comment 3 4 about the rural areas and about the areas where natural gas may not be available because the infrastructure is not 5 there, there might be other fuels out there besides clean 6 diesel that can meet -- liquid fuels that can meet the 7 8 2.5. It's my understanding that propane can do that now. 9 So you're not just precluded in these rural areas to clean 10 diesel. There might be some liquid fuels that you could

11 store out there and meet those numbers.

12	The second issue is the certification of diesel
13	engines. And this is more a question. On the staff
14	report on page 21, there is a comment made that said,
15	"Although rarely done to secure eligibility for State
16	grant funds, it would be possible to certify these 3.0
17	gram horsepower engine levels using the federal process."
18	And I guess our question was in that caveat about
19	"although rarely used", we question what is the need to
20	use that process or the urgency and just that was more
21	of a clarification question from staff.
22	The third thing we'd like to talk a little bit
23	about is the process for the funding allocations. One of
24	the things we have been promoting is that you have the
25	three pots of money and that there will be an ability that

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

242

1 if funds are undersubscribed in one particular fund, they 2 could flow over to funds that are oversubscribed. We see 3 that in the staff report that that is, in fact, the case. 4 But a couple questions arise that we would kind of like 5 discussed.

One is what happens if the clean diesel is not 6 7 certified by next April 1st, which is, I believe, the 8 deadline on the staff report? I believe it's on page six 9 when the actual schools have to apply for the funding. In 10 other words, if it's not certified by next April 1st, does 11 that \$15 million automatically roll over into the other
12 pots? That's not clear.

And then there appears to be some bit of confusion on the actual time the funding is reallocated. On the table on page six, it appears that it's January 1st 2002 when the That gets to reallocate the funds. And in the staff report on page 15, it's July 15th, 2001. So I think we need to clarify that point, as well.

And then the final comment I'd just like to talk about is the CNG cap on the infrastructure. The staff recommends in a number of places in the report that they suggest a ten percent cap on the infrastructure, in other words, about two and a half million dollars. And we would suggest that that would be more as a guideline. There might be sessions where you may need a little more money

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

243

to get the infrastructure built. There might be a little
 less. And setting it at ten percent may preclude some
 very good projects from going forward.

So we would just suggest that rather than set the cash at 2.5 million or ten percent, that it would be based on a case-by-case basis, and the administering agency would make a determination based on whatever considerations on how much should be allocated for infrastructure.

CHAIRPERSON LLOYD: Thank you. Maybe staff could

10

11 address at least two of the points there. That's on the 12 federal certification compared to ARB and then the other 13 issue about the timing.

ON-ROADS CONTROLS BRANCH CHIEF KITOWSKI: Yeah, on the federal certification, the emission standards that the Air Resources have is that four grams is our conventional standard and then the optional standards start at two and a half. However, the federal government does have federal emission level standards at various levels. And we can tap into those and we can make them enforceable in contracts.

The point about, although rarely used, was simply a reference to the fact that in Moyer and in other incentive funds, we've always fundamentally relied on the optional emission standards that would start at two and a

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

244

half. And we have not done that in the past, although we
 can do it.

BOARD MEMBER CALHOUN: Let me ask anotherquestion in connection with that.

5 CHAIRPERSON LLOYD: Yes, Mr. Calhoun. 6 BOARD MEMBER CALHOUN: Are we tracking the 7 certification of this particulate? That was one of the 8 questions that went through my mind is what happens if the 9 medium doesn't get -- how do we know they're going to 10 certify, are we tracking the certification of this engine? 11 ON-ROADS CONTROLS BRANCH CHIEF KITOWSKI: We are tracking it. Every indication we have so far is that it 12 13 will be certified prior to -- well, prior to that time and 14 that maybe -- I think Mike is going to add a point here. 15 EXECUTIVE DIRECTOR KENNY: The question with 16 regard to if they're not certified by April 1st, what we 17 would do is we would actually take the \$15 million and bring it back to this Board for redistribution. 18 CHAIRPERSON LLOYD: Thank you. 19 20 Yes, Professor Friedman. 21 BOARD MEMBER HUGH FRIEDMAN: Just a quick 22 question. I'm a long time customer of Sempra and I'm curious about why you're down here as neutral. You don't 23 24 make diesel, but you do make natural gas. And you're 25 potentially benefiting from the half that's been allocated

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

245

from natural gas. The only part you're opposed to is the
 part that wasn't out there.

3 MR. MURRAY: What I would have done is put down
4 support if amended. I just didn't see that opportunity,
5 so I --

BOARD MEMBER HUGH FRIEDMAN: I wanted to be sure7 I understood where you were coming from.

8 CHAIRPERSON LLOYD: The next is Jim O'Connell,
9 Dave Smith, Ed Manning, Stephanie Williams and Pam Jones.
10 MR. O'CONNELL: Chairman Lloyd, good afternoon,

11 members of the Board. I'm Jim O'Connell. I'm vice 12 president of A-Z Bus Sales.

And, first off, I'd like to say that I think staff has done a remarkable job of trying to pull all the factors together here and really bring some things to you. We support the Governor's program and we'd like to see it continue. Obviously, we sell buses and that's a very important part of what we do.

We're concerned by the ARB's position to vacate the long-standing approach to optional low NOx, concerned that acceptance of a federal standard rather than maintaining California's more stringent expectations for emission levels and air quality exists within the decision. Now, we think that the 2.5 NOx position is the appropriate one, and that even though we do sell diesel

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

246

engines the International engine is not available to us.
 It's proprietary on their part at 3.0. And so you're
 going to have one manufacturer who's going to be able to
 provide that.

5 We feel that there's a lot of competition on the 6 alternative fuel side, in terms of CNG. We offer to you a 7 1.5 gram NOx propane engine on the vehicle that's outside, 8 and two and a half standards for other propane engines 9 that are also available in school bus use through Cummins. 10 So there are certainly competitive engines and

other kinds of things on the alternatively fueled side. 11 And I think Cummins engine company's representative said 12 13 it best when he said that they'd like to come to the 14 party, they're just not able to do it now. I'd like you 15 also to consider that John Deere, other manufacturers, 16 including Cummins on the alternative fuel sides, did 17 accelerate to a 2.5 optional low NOx, and did accelerate their, whether you want to call it a market or their 18 19 process in terms of bringing engines forward and they spent million of dollars in doing it. 20

They are not reaping any reward for doing that at the point in time based on your decisions here. The other thing is that with a \$30 million, \$20 million split as you had originally decided with regard to particulate traps and other PM traps, that your original proposal provided

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

247

for some very interesting opportunities, a 30/20 split. 1 What I'd also like to tell you, so I'm kind of 2 floating a balloon here, but there's about 55 million 3 4 gallons of diesel fuel used in school buses each year. And if you take the differential between ultra-low NOx --5 or ultra-low emissions -- or I'm sorry, ultra-low sulfur 6 diesel at a nickel to seven cents taxed, that you might 7 8 end up with about a \$4 million a year price tag to mandate 9 all districts to use low sulfur diesel. That might be a 10 part of your program.

11 Thank you.

12 CHAIRPERSON LLOYD: Thank you.

13 Ms. D'Adamo.

BOARD MEMBER D'ADAMO: How does propane compare to CNG in terms of infrastructure costs? MR. O'CONNELL: It's significantly less. In fact, there are some propane suppliers that will actually supply the infrastructure to you so that you can simply put a fuel tank there and refuel your vehicle right on

20 site at very low cost.

21 BOARD MEMBER D'ADAMO: Does staff have anything 22 to add to that?

23 You'd agree with that?

I think when Chris spoke from Mendocino, he's as unique perhaps as Santa Barbara Air Pollution Control

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

248

1 District. They both have strong interests in propane fuel. And actually the IMCO certification from the 2 3 Executive Order is .9 grams per brake horsepower. 4 CHAIRPERSON LLOYD: What about particulate? 5 MR. O'CONNELL: It's a gasoline engine. I do not know the particulate at this point in time. 6 7 ON-ROADS CONTROLS BRANCH CHIEF KITOWSKI: 8 Particulates have generally been very low, with the 9 propane at or lower than CNG levels. 10 CHAIRPERSON LLOYD: So it's a good alternative as 11 well.

12 MR. O'CONNELL: It definitely is. 13 CHAIRPERSON LLOYD: What about A-Z Bus Sales, 14 what sort of part of the market do you have? 15 MR. O'CONNELL: We have a significant part of the 16 market. We represent Bluebird Body Company. They're the 17 largest complete manufacturer of school buses. They use a lot of International chassis for their production. 18 19 However, the particular engine is not going to be available in the size of chassis that we use, so that I 20 21 don't think we've got that opportunity to use it. 22 We have delivered nearly 700 alternatively fueled 23 CNG school buses to California. We have a significant --24 well, we have the near total share of the CNG school bus 25 market at this point in time. We're really proud of that.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

249

We started earlier, took our lumps and we continue to work
 with several of the air districts to continue to develop
 that technology.

4 CHAIRPERSON LLOYD: Would you say you can't get
5 the International Green Diesel engine to put in your
6 chassis?

7 MR. O'CONNELL: That's correct, not for the 8 particular platform.

9 CHAIRPERSON LLOYD: Okay. Yes, Ms. D'Adamo.
10 BOARD MEMBER D'ADAMO: Perhaps I should have

explored this further. If staff could respond on the difference between propane and CNG in terms of cost of the bus, and also where would it fit in? It's not CNG, it's not Green Diesel.

ON-ROADS CONTROLS BRANCH CHIEF KITOWSKI: It would fit in with the two and a half category. It was an alternative fuel requirement, so it would fit in there. And you may be in a better position to talk about the cost specifically on the propane.

20 MR. O'CONNELL: Sure. The cost differential is 21 probably under \$10,000.

22 BOARD MEMBER RIORDAN: More or less.

23 MR. O'CONNELL: More or less.

24 BOARD MEMBER RIORDAN: No, more or less?

25 MR. O'CONNELL: Ten thousand dollars less, I'm

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

250

1 sorry, than it would be for -- it would \$10,000 additional 2 over a diesel installation. ON-ROADS CONTROLS BRANCH CHIEF KITOWSKI: About 3 4 half in between a diesel and a CNG. 5 BOARD MEMBER D'ADAMO: And what about in terms of availability throughout the State, are there certain 6 regions where propane would be more available or is it 7 8 pretty much equal throughout the State? 9 MR. O'CONNELL: There are certain areas where 10 propane would be more available than less available.

Propane is a great alternative. It's typically available just about anywhere. The problem is motor fuel and there are some significant issues with regard to motor fuel. But I think staff would have to take a look at that. And I can't speak to that. I can only tell you that I got the vehicle.

17 CHAIRPERSON LLOYD: I'm aware of the issue. 18 MR. O'CONNELL: One other thing, and I'm sorry to 19 take -- I've been up here three minutes, but I would like 20 to say that we have worked with several of the air quality 21 management districts and they work closely with the 22 California Energy Commission. We would advocate that 23 those districts be allowed to continue to work and perhaps 24 administer some of these programs in their areas and that 25 they might also have some innovative options in terms of

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

251

1 actually extending some of these funds.

I mean, to say that some of our air districts don't have matching funds available, but they might incentivize school districts to utilize some of their monies for other options. So we'd like you to consider that.

7 CHAIRPERSON LLOYD: Thank you very much.
8 Dave Smith.
9 MR. SMITH: Mr. Chairman and board members, I'm

10 Dave Smith. I work for BP/ARCO and I'm here in a

11 favorable position, as compared to last month, and support 12 your proposal.

13 (Laughter.)

14 CHAIRPERSON LLOYD: You were an hour last month, 15 so don't count on it again.

16 (Laughter.)

MR. SMITH: I won't. Actually, I'm just here to answer one of the questions you asked, Mr. Chairman, about the availability of low sulfur diesel fuel. BP continues to make available over a million gallons a day of low-sulfur diesel fuel. Within the last couple of months, we moved over 50,000 gallons or two million gallons of the low-sulfur diesel fuel up from the San Francisco Bay Area, so it's commercially available in northern California as well as southern California now.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

252

1 CHAIRPERSON LLOYD: Roughly, Dave, what percentage of your total sales are roughly? 2 3 MR. SMITH: Well, currently, percentages are very 4 small. But that production rate can be up to about 40 or 50 percent of our overall production. We can't maintain 5 that, but there is a demand for it right now. We do have 6 contracts with transit and school systems, and we've been 7 getting quite a bit of interest in northern California 8 9 transit districts in going the diesel pathway on your 10 urban bus rule.

11 So just to conclude, we're supportive of your 12 rule. We're supportive of the guidelines. And given the 13 guidelines, we look forward to working with you next year 14 in trying to get additional funds in the Legislature to 15 continue this program.

16 Thank you.

17 CHAIRPERSON LLOYD: That support is much18 appreciated.

19Does the staff capture the price differential?20I think they said three to five cents or five21cents. Inasmuch as there really isn't a market, price and22demand, BP agreed we're selling low-sulfur diesel at five23cents over CARB. We're agreeing to that for at least a24year in our contracts with people. Hopefully, within the25next year, other oil companies will come into a market and

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

253

there will be a real market price supply issue. 1 2 CHAIRPERSON LLOYD: Thank you. 3 BOARD MEMBER CALHOUN: I've got a question. 4 CHAIRPERSON LLOYD: Yes, Mr. Calhoun. 5 BOARD MEMBER CALHOUN: As a fuel supplier, does it matter to you whether the standard is two and half or 6 three grams? 7 MR. SMITH: Mr. Calhoun that's a dangerous 8

9 question. We understand the complexities and the balances 10 that the staff was trying to meet and we certainly support 11 the way they've approached it.

12 I'd like to mention that BP is one of the largest suppliers of natural gas to the State of California, I 13 14 found out just a few weeks ago, which surprised me. So 15 we're glad to see that all fuels are being given a chance 16 through the program. 17 BOARD MEMBER CALHOUN: Thank you. 18 (Laughter.) 19 CHAIRPERSON LLOYD: So you're, in fact -- you 20 support both --21 MR. SMITH: That's right. We're very supportive 22 of that. 23 (Laughter.) 24 MR. SMITH: And Dr. Burke isn't here, I don't 25 know what's wrong. PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

```
254
```

(Laughter.) 1 CHAIRPERSON LLOYD: When did you see the light? 2 (Laughter.) 3 MR. SMITH: Tuesday when I met with Dr. Burke. 4 5 (Laughter.) 6 CHAIRPERSON LLOYD: Thank you very much. 7 Ed Manning, Stephanie Williams, Pam Jones, Scott 8 MacDonald. MR. MANNING: Thank you, Mr. Chairman, members of 9

10 the Board. It's nice to be here again.

After hearing Dave's testimony, I'm reminded of John Lennon's statement, "Give peace a chance."

13 (Laughter.)

MR. MANNING: There has been an acrimonious debate, part of an ongoing acrimonious debate. But I think when you step back and look over the last two years after diesel particulate was listed as a toxic air contaminant, to where we are today, actually, there's been pretty monumental progress. And I think you have to look at the program quite frankly as part of that progress.

Last year, the Board took a major first step on the transit bus rule in doing two things really, advancing clean diesel technology and allowing alternative fuels to participate at the same time, all towards the goal of driving down emissions in both PM and NOx emissions.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

255

And I think in response to some of the questions 1 posed by Supervisor Roberts and some of the debate, if you 2 look at the transit bus rule, I think it has a lot of 3 parallels to the rule. In the transit bus rule, you had 4 fuel neutrality. You had both clean diesel and CNG 5 participating, as well as fuel cells and other 6 technologies. You had local choice, which this rule also 7 8 has.

9 The other thing is you look at the emissions 10 comparison. In that rule there are times when diesel 11 pulls ahead of CNG and times when CNG pulled ahead of 12 diesel as part of that proposal. That is not dissimilar 13 in many respects to what's in front of you today.

14 Under the proposal, the certification level for 15 clean diesel for particulate is lower than for CNG. That 16 is significant. And in our view, going back to one of the 17 questions Professor Friedman asked earlier, there was an extensive discussion in the budget process last year, the 18 19 details of which I and other people could bore you with and perhaps entertain you with, but you don't really need 20 to get into, except to say that it was understood that A, 21 22 in our mind, this was first and foremost a particulate reduction program, and I think politically was sold as 23 that. Not that NOx issues weren't important as part of 24 25 the debate, they clearly were, as global climate changes

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

256

issues and other issues have been loaded onto this over
 time, but primarily we viewed it, and think a lot of other
 people did, as a way to reduce PM reduction -- to achieve
 PM reduction and also NOx reduction.

5 The other thing that I think you look at in the 6 proposal is this is a zero sum game, in that you have 7 finite dollars to allocate and you're looking at how to 8 get the most effect for the dollars that you have. And 9 you can debate whether it should all go to retrofits, 10 whether it should all go to CNG, which would give you the 11 least amount of benefit, whether it should all go to new 12 clean diesel buses. A lot of school districts want new 13 buses.

14 But this is what we have described as an elegant 15 compromise, one that probably equally offends all, which 16 means it's probably on to something not unlike other 17 compromises that have come before the Board. And that is not meant to be -- it's not meant to be trite. I mean, 18 19 it's a difficult issue with complex -- you know, you're looking to balance fuel sources, achieve reductions for 20 particulate specifically, but also for others while you're 21 22 there, and how do you do all that. And that is not easy 23 to do.

I participated, as did others from the business community, in extensive discussions about the 3.0 NOx

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

257

1 level. I will say that, you know, no good deed goes 2 unpunished. Navistar was the only one that I saw to step 3 up. And, you know, I think you're trying to achieve 4 progress immediately and this is perhaps the best way to 5 do it.

6 And our companies, WSPA member companies who I'm 7 here representing, have been participating on an 8 individual basis with Air Resources Board staff to make 9 the commitment to provide the clean diesel fuel. And you 10 just heard Dave Smith's testimony on that, so we will 11 continue to participate in the process. We think this is 12 one step along the way really towards implementing a much 13 more ambitious goal, which is really your diesel control 14 plan, which we think will present other challenges as we 15 move forward.

But we and others I know in the business community, the Chamber, the agricultural community, the engine manufacturers, are at the table and are going to continue to be at the table to make it work.

20 Thank you very much.

21 CHAIRPERSON LLOYD: Thank you very much.

22 Comments, questions?

23 Thank you.

24 Stephanie Williams, Pam Jones, Scott MacDonald 25 and then V. John White.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

258

1 MS. WILLIAMS: Good afternoon. My name is Stephanie Williams. I'm the Director of Environmental 2 Affairs for the California Trucking Association. 3 4 (Thereupon an overhead presentation was 5 presented as follows.) 6 MS. WILLIAMS: We are opposed to this proposal today, but tomorrow we're supporting MTE, so we hope you 7 understand. 8 CHAIRPERSON LLOYD: No. 9 10 (Laughter.)

11 MS. WILLIAMS: I have to be smarter than the 12 button and I'm not, what do I do? 13 --000--MS. WILLIAMS: The trucking overview. The CTA 14 15 members have not been politically active on school bus 16 issues and will be not in the future. There was a Los 17 Angeles Times article which upset our members and brought our President Elect here today for the hearing. And that 18 19 is the article and the editorial which inaccurately depicted natural gas engines as necessary to reduce ozone 20 21 and particulate matter in the South Coast basin. 22 Our members want to set the record straight regarding federal criteria pollutants addressed in this 23 24 proposal, particulate matter and ozone precursors. That's 25 what the fed expects us to do, meet these health-based

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

259

1 standards. That's why we're all here.

2 The precedent of letting natural gas pollute more 3 particulate and ozone precursors threatens attainment of 4 our health-based standard in the State.

5 The South Coast AQMD, based on diesel particulate 6 being bad and natural gas particulate assumed to be, you 7 know, good for you, has proposals like the 54 percent 8 reduction in NOx beyond what natural gas is, and a 71 9 percent more reduction in PM emissions. It discriminates 10 against clean diesel technology and allows CNG engines to emit four grams NOx and be subsidized under the program.
We have a problem with that.

--000--

13

MR. WILLIAMS: Also, when the California document was finalized listing diesel as attacked, the National Resource Defense Counsel sued four of the largest grocery stores in southern California. Did the settlement reduce particular emissions, overall particulate emissions, those emissions that federal EPA will say yes, you met your health-based particulate standards.

No. This suit was settled almost two years later. The were required to purchase dual-fueled LNG diesel engines to reduce particulate because of the listing, but the PM emissions on these new engines that cost \$35,000 more were no different than the 1994 diesel

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

260

particulate emissions. And they had to pay \$800,000 in
 attorney's fees. That would buy a lot of diesel trucks,
 clean diesel trucks.

We have a problem when proposals are not fuel
neutral. We urge you to move to fuel neutrality.
Promoting higher emission standards for an emerging
technology, be it natural gas, propane, you know, fuel
cell for ozone is a problem, because ozone precursors are
nonmethane hydrocarbons and oxides of nitrogen.
The federal standards for diesel and anyone

competing in that area for 2004, are nonmethane --11 nonmethane hydrocarbons plus NOx. You've got to meet that 12 13 standard to reduce ozone. That provides an incomplete 14 comparison of the health and environmental risk. It 15 ignores respiratory, cardiovascular, global warming, 16 carbon monoxide. Spark ignition technology is no panacea. 17 It emits a lot more ThatO between 10 and 16 times. Six times would be the low level that we'll using in the slide 18 19 coming to you, not to mention ThatH4 potential greenhouse 20 gases. It ignores nonmethane hydrocarbons, which is our 21 biggest problem today. 22 --000--23 MS. WILLIAMS: Here we have a slide that shows

24 natural gas versus diesel engine. You have a 600 percent 25 increase in carbon monoxide and 200 percent increase in

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

261

nonmethane hydrocarbons. And a recent Department of
 Energy study shows that ozone increases in Los Angeles on
 the weekends. Because trucks are off the road, NOx
 becomes lower and the nonmethane hydrocarbons reacting
 with the sunlight actually increase our ozone, which we
 are measured for federally. We get measured on ozone, not
 NOx, not nonmethane hydrocarbons.

9 MS. WILLIAMS: There was recent studies that show 10 that diesel particulate is no more toxic than the natural

8

--000--

11 gas particulate in Sweden.

12 CHAIRPERSON LLOYD: Three minutes has passed 13 awhile ago.

MS. WILLIAMS: A lot of people have seen this Swedish study, CNG at best. Diesel plus the particulate is lower.

Our conclusion, we support EPA's promulgated standards for diesel for 2006. We are fighting for them nationwide. Please make natural gas meet that same .01 and add nonmethane hydrocarbons into the NOx standard to be consistent with the federal government.

22 Thank you.

23 CHAIRPERSON LLOYD: Any questions from the Board?24 Comments from staff?

25 Pam Jones, Scott MacDonald, V. John White and

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

262

1 Bonnie Holmes-Gen.

2 MS. JONES: Good afternoon. My name is Pam Jones 3 and I'm here representing the diesel technology forum, 4 which is leading manufacturers of engines, both diesel and 5 CNG, as well as fuel and after-treatment emissions control 6 devices.

7 I'd like to ask for your consideration of four
8 areas. Number one, continue to include clean diesel in
9 the mix to solve the problems with the school buses. The
10 main thing is to get the older buses off the streets and

11 to clean up the emissions of those existing buses.

12 The school district should have the flexibility 13 to decide what their needs are for durability, reliability and cost. And you've heard from your own staff that clean 14 15 diesel does meet the requirements, it does it at a cost 16 that will allow the school districts to add filters to 16 17 buses for the cost of one new bus. That's not insignificant to these school buses -- to these school 18 19 boards.

20 Number two, continue to acknowledge the progress 21 that the clean diesel industry has made. I don't think 22 you should be considered sell-outs for accepting your 23 staff's proposal in looking at the aggregate benefit of a 24 combination of these two fuel choices.

25 Very often the CNG proponents are critical of the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

263

diesel industry and compare CNG emissions to old diesel technology. That's not the case today. You heard about a study of in-use traps in San Diego that reduced emissions levels to near zero. There's another study, recently, by the National Renewable Energies Laboratory and ARCO that concluded the same thing, that's in-use RealTime.

7 Third, don't sanction a monopoly either of the 8 bus companies or the fuel choice. Don't endorse a funding 9 program that limits money awards to just one company. 10 There are other players as you heard who do want to 11 participate. And while they're not there now, they will 12 be. Encourage competition as more companies meet those 13 standards.

Additionally, I would urge you to be cautious about endorsing a system that awards money and allows southern California to promote a monopoly of only one choice, that being CNG.

Diesel engine companies have spent millions of dollars to meet your standards. And to exclude them from any area geographically or functionally would be highly unfair.

Number four, we ask that you make it clear to the school boards in your directives to them that they are not being asked to sit as a board of toxicology. We've seen in the transit hearings that they're very confused when

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

264

1 they're being presented with conflicting information, CNG 2 and diesel. And they feel very uncomfortable being asked 3 to make the health decisions that they are presuming that 4 they need to make, so we're asking that you be more clear 5 that your staff has undertaken health and environmental 6 studies and determined that the two paths are equivalent 7 in reaching your standards.

8 Again, I don't think you are sell-outs for 9 considering both paths. And I think that you will get the 10 best bang for the buck and the most clean air for the buck 11 if you follow both of these paths as stated in the staff 12 recommendations.

13 Thank you.

14 CHAIRPERSON LLOYD: Thank you very much.

15 Questions or comments?

16 Mr. McKinnon.

17 BOARD MEMBER MCKINNON: The staff. Has CNG 18 emissions been studied the way diesel has? I'm not making 19 that a matter to be resolved today, but if it's the case 20 that it -- we really need to probably think about doing 21 some work. 22 EXECUTIVE DIRECTOR KENNY: We do need to do more

23 work in that area. We know much more about diesel.

24 CHAIRPERSON LLOYD: Thank you very much.25 Scott MacDonald, V. John White, Bonnie

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

265

1 Holmes-Gen, Sandra Spelliscy.

10

2 MR. MacDONALD: Hi, good afternoon, Good evening. 3 My name is Scott MacDonald. I'm with the South Coast 4 Clean Air Partnership. We are a coalition of school 5 districts, transit agencies, the petroleum industry and 6 other business in southern California largely within the 7 South Coast Air Quality Management District, promoting and 8 fighting for fuel neutrality in government regulations 9 concerning fuels of the future.

The kind of dual path strategy that we are

talking about today for school buses is consistent with 11 the established Air Resources Board policy and makes sense 12 13 as a way to allow all districts in the state a chance to clean the environment for their students. With a clean 14 15 diesel option, you give school districts a chance to 16 protect the health of thousands of more kids. Your own 17 staff report on the issue shows that dollar for dollar 18 clean diesel buses will remove hundreds more tons of 19 pollutants from the air than CNG buses.

If clean air for kids is really the goal here, then school districts should be given a clean diesel option. A couple of more quick points on the handouts you just received. There's a bar graph showing the results of the real world San Diego City school test of clean diesel school buses and the difference between those emissions

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

266

and the emissions of the dirty diesel buses that we're
 trying to get off the road.

As you can see there was serious reductions in important pollutants and we're hoping that this kind of real world test makes it clear that this is an option that should be made available to all school districts. Secondly, there's a question earlier in the presentation today by your staff, that the South Coast Air Quality Management District is requesting that the money only be made available for CNG buses in that area, again. 11 I'd like to read you a list of our school districts who are a part of our group. The California 12 13 Association of School Transportation Officials, Riverside County Schools Advocacy Association, Orange County 14 15 Department of Education, Unified School Districts in 16 Beaumont, Irvine, Murieta Valley, Newhall, Ontario, Monte 17 Claire, Roland, Walnut Valley, William That Harte, and the 18 Transportation Supervisors in the Covina Valley and the 19 Santa Ana Unified School District. They are pleading for fuel neutrality, so that they can give their students the 20 21 most clean air bang for the buck.

And we're asking you to support them in that position.

- 24 Thank you very much.
- 25 CHAIRPERSON LLOYD: Thank you.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

267

Question, Mr. Calhoun. 1 2 BOARD MEMBER CALHOUN: I don't have a question for him, but I want to go back to something the Matt 3 McKinnon was mentioning a few minutes ago, and that is 4 about the emissions from natural gas and the comparison 5 6 between those of diesel fuel. And I think we ought to take a serious look at it. Now Stephanie Williams was up 7 8 here a few moments ago and she mentioned this also. And 9 that I notice in looking at the press release that they 10 issued saying that "Truckers Champion Green Diesel,"

11 "Challenge Environmental Lobby to 'come clean'" and talk 12 about the emissions from natural gas. I think we ought to 13 take a real good look at that and expose whatever results 14 we find.

DEPUTY EXECUTIVE OFFICER CACKETTE: I would just comment, that we are testing right now natural gas and diesel engines at our MTA facility and we're going to be doing fairly detailed work on that. So there will be more information available later.

20 CHAIRPERSON LLOYD: Thank you. Next is John 21 White. And I think we've got to thank John for all his 22 efforts to actually get the \$50 million that we're 23 squabbling over here in some ways.

24 MR. WHITE: Thank you, Mr. Chairman. John White 25 today representing the Sierra Club. I want to first of

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

268

1 all thank the Board and the staff for all the time they've 2 spent on the issue. I'd actually prefer to spend more of 3 our time working on spending the money and getting money 4 than having quite the level of detail on allocation, so I 5 want to put this in a little bit of context.

6 On the other hand, I do think that I agree with 7 my friend Ed Manning that this is reminiscent of the 8 transit bus rule. But unfortunately this is not a rule, 9 this is a procurement. And that's where I'd part company 10 with Mr. Manning, although, I am fond of sharing much in 11 common with the views. I am particularly gratified to 12 hear of the evolution and the thinking of BP ARCO on this 13 subject.

14 But I think that the essential point that I am 15 troubled by is we have given undue deference to the market 16 share considerations of one company in this procurement. 17 And I have no desire to demean the accomplishments of International. Quite the contrary, I only wish they would 18 19 offer that engine as a repower, so we could use it in Sacramento and LA on the truck market, but instead they're 20 21 not offering it as a repower as I understand. I'm told 22 that they refuse to offer the same engine as a repower, which is actually where it would be a terrific 23 24 achievement.

25

Instead, it's only offered as a school bus, which

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

269

1 is a narrow niche market. And essentially what we're 2 doing is we're allowing a less clean engine to receive 3 advantages over a more clean engine. So that's my 4 concern.

5 So I think if there is a requirement to have to 6 have a certain allocation to the company because of how 7 hard they've worked, that allocation ought to be smaller 8 than 15 million, certainly, given the state of preparation 9 and certification and so forth. And I'd put the 10 difference into, agreeing with South Coast, I'd put it 11 into retrofits.

12 I think that the problem that's come here is that 13 we've sort of, because the public money is going to be 14 very helpful in the marketing of the vehicles and we've 15 sort of confused ourselves that we're defining who can 16 sell a particular product as opposed to who we're going to 17 help the most. And to me we should help the most that one 18 that's doing the most good.

And so that's my complaint with the regulation. On the other hand, I want to see it put in context and have us move forward overall, but I think it's troubling when we seem to have felt the need to have a policy that guarantees outcomes. And, in fact, to me the policy we should be striving for is to move the alternative cleanest fuels to everywhere we can and enthusiastically put the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

270

clean diesel and the less clean technologies everywhere
 else, because we know that CNG isn't going to go
 everywhere.

4 Propane. I was pleased to hear about it's 5 competitiveness and opportunity to apply. We know that 6 not every school district can handle the alt fuels 7 infrastructure. So to me the policy preference should be 8 clear for CNG, but it should be flexible. And I'm 9 disappointed that we weren't able to get to that outcome 10 here today and would urge the Board to give all of the 11 testimony and all of these discussions its full 12 consideration.

13 But I want to thank the staff for working hard. 14 I just think we ought to think of procurements 15 differently. To me the clean should go first, the less 16 clean should be participating, but not have the same 17 advantage or encouragement. And they should be, I think, encouraged to go into other markets where we need them 18 19 more. We, frankly, don't need them in school buses quite as much as we need them elsewhere. 20

21 So anyway, thank you for the time to listen and 22 I'd be happy to answer questions.

23 CHAIRPERSON LLOYD: Thank you very much, John. I
24 would like maybe to ask International, whether, in fact,
25 that's true, that they're not interested in the repower

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

271

1 market.

2 MR. WHITE: I think it's a matter of where the 3 scarce number of engines can go. I called to get some 4 guidance on the discussion today, because as you know we 5 have a somewhat different emphasis in the north and south, 6 and repowers are very important.

7 And I just don't want to see the clean diesel 8 going where the CNG can go. I want it to go where the CNG 9 can't as easily. And that's where I think we should hit 10 for a policy as we go forward in the future. 11 Thank you.

12 CHAIRPERSON LLOYD: Mr. McKinnon.

BOARD MEMBER McKINNON: I don't have a problem with what you're asking there. And he's coming now. Do you happen to have any information about the alternative fuel engine manufacturers and whether or not they have engines available for repowers?

MR. WHITE: I wish the guy from Cummins had shown up six months ago, frankly, because if we'd had his testimony earlier, that, in fact, the 2.5 is not a CNG only standard, which it was in the Carl Moyer and I didn't think it was here, we might have not had the level of confusion.

I think the work that the staff -- I'm serious, staff -- I mean, because I understand the policy that the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

272

Administration wants to pursue does not exclude fuels that have the same or better performance, I understand that. What we don't want to do is raise fuels technologies up that don't quite meet the same standards, and help them. But I agree with the staff and I thought the guy from Deere made some very good testimony about -- and, frankly, you know, I spend most of my time these days working on the energy problem that we have.

9 And I want to see a meeting on diesel backup10 generator retrofit technology and funding, so that we can,

11 you know, these school buses are going to all be pretty 12 clean if we get going on it. We've got a lot of other 13 places to put these technologies where we're not doing as 14 well.

15 So I think the work, getting all the European 16 work, getting everybody to open their kimono and show what 17 they do and compare them to each other is the way to go 18 forward.

BOARD MEMBER McKINNON: That wasn't the question
I asked at all.

21 (Laughter.)

22 CHAIRPERSON LLOYD: He operates in the23 Legislature there.

24 MR. WHITE: Excuse me, Matt.

25 BOARD MEMBER McKINNON: I guess I'll leave the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

273

question open for the CNG manufacturers, but as to whether or not -- I mean, if we're going to deal with the fairness issue that you raise, I mean, part of the fairness issue is whether or not the CNG manufacturers, engine manufacturers, can also do repowers and are selling their engines for repowers.

7 MR. WHITE: My guess on repowers is that they're
8 case by case, that certain applications will work and
9 others will not.

10 BOARD MEMBER McKINNON: Right.

11 And some will work with natural gas and some will 12 work better with diesel depending on the fuel storage 13 capacity and things like that.

BOARD MEMBER MCKINNON: They, too, may make
allocation decisions in terms of their markets and where
they're moving engines and that's --

MR. WHITE: My sense is to the extent we want to draw people in with public money, we want to draw them where we need them the most, and where they're going to be the cleanest. I don't disagree that we want to encourage all the --

BOARD MEMBER McKINNON: And I guess, finally, while we probably have a very different view about how we should do the year, I do appreciate you and your organization's pressure to keep this thing moving and to

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

274

make sure that we have the money. And I look forward to,
 you know, clearly the school buses are going to take a few
 years and a few more dollars.

4 MR. WHITE: I think we agree it's important to 5 get the money we have spent well and demonstrate the 6 viability of the program to everybody concerned, improve 7 and narrow our differences and go get more money for the 8 future.

9 BOARD MEMBER McKINNON: You bet.
10 CHAIRPERSON LLOYD: Thank you, John And I guess

11 Warren is going to address the issue of repowering.

12 MR. SLIDOLSKY: Well, after what you were saying 13 about not quite being responsive to the question, maybe it would be better if I heard exactly what the Board is 14 15 asking. And to show that I learned, Dr. Lloyd, I'm Warren 16 Slidolsky again from International Truck and Engine 17 Corporation. How can I help? 18 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: It's 19 my fault I had Warren out in the hall in an argument. CHAIRPERSON LLOYD: I think the issue was Warren, 20 Mr. White mentioned that he was delighted to see the 21 22 progress made by International with the Green Diesel engine, but he said the market obviously for school buses 23 24 is more limited. We really need your help particularly in 25 the north area to repower some of the engines stationary

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

275

side so that we can bring the NOx down rapidly in the
 region.

And it was trucks, sorry, trucks. But the point is that he understood that, in fact, Navistar was not interested in that particular market.

6 MR. SLIDOLSKY: Well, one thing, when you talk
7 about stationary sources -8 CHAIRPERSON LLOYD: I misspoke, it was trucks.

9 MR. SLIDOLSKY: You know, it's something my 10 mother used to tell me is you can't really make a silk 11 purse out of a sow's ear. And when you look at these
12 old --

13 CHAIRPERSON LLOYD: You would never call one of 14 your engines a sow's ear, would you?

MR. SLIDOLSKY: Well, no, I would not to answer the question, specifically. What I would say is not only International but the industry has worked very hard at improving engines. And the difference between these older engines and the new engines is so dramatic that it is extremely difficult, if not impossible, to bring that technology backwards, to be a little more specific.

22 When you look at these old engines, they're 23 mechanical engines. The beauty of today's engines are the 24 electronic controls, and you just can't put those 25 electronic controls on old mechanical engines.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

276

The new fuel systems are so dramatically 1 different you just can't bolt on a new fuel system and 2 have it work so that the repowering thing in our mind is 3 4 something that was extremely difficult to do, and can you really do it? It's almost like trying to design a new 5 engine. We have been focusing our resources to get the 6 clean engines of the future that you're demanding, the 7 public is demanding, and the environmentalists are 8 9 demanding. We want to do it.

I'll stop if there's some additional questions on

10

11 that?

CHAIRPERSON LLOYD: I understand. I think Mr.
 Cackette.

DEPUTY EXECUTIVE OFFICER CACKETTE: It's my 14 15 understanding that some of the repowers are much newer 16 trucks than mechanical ones. They're not trucks of the 17 eighties, but trucks of the nineties. I think the specific question is would International make the Green 18 19 Diesel engine available for repower into an electronic-base chassis or something that's more modern? 20 21 MR. SLIDOLSKY: Well, one of the things that we 22 have said initially, and this really starts to get into retrofit programs, the real key on a Green Diesel is the 23 particulate filter. Yes, we do some additional things 24 25 with a lot of electronics and calibrations to reduce the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

277

NOx. And we have been on record as saying that we at the
 get-go would support retrofits to electronic control
 engines, because the electronic control engine does play a
 role in using a particulate filter.

5 You can get environmental benefits. And we 6 support what you're doing with the retrofit programs. But 7 to really maximize the use of a particulate filter, you 8 need those electronic controls to keep that continuous 9 regeneration going. You need a certain amount of heat. 10 If you're not getting the exhaust temperature required, 11 then with electronic controls you can get it.

DEPUTY EXECUTIVE OFFICER CACKETTE: I think we're still missing. The question was, wouldn't you like to sell a brand new engine with a particulate filter and put it in an older truck in Sacramento, that's the question, the whole shebang, not just a trap or not just a retrofit of an engine, but the whole brand new thing is what we're a calling a repower.

MR. SLIDOLSKY: One of the things that has gotten in the way, and we have looked at that also, Tom. And I'm sorry I keep missing the point. Stick with me or I'll run out of things to say and I'll just have to sit down. One of the issues you have when you put a new

24 engine into a vehicle is you need to match it with the 25 existing transmission and the existing rear axle. And our

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

278

engines have changed so much that there's also been
 dramatic changes in what the rear axle looks like, what
 the transmission looks like.

4 So if we were to take one of our new engines and 5 put it into an older vehicle, you may not get that match 6 up and it would lead to a lot of customer dissatisfaction 7 issues. And so that has been -- we've asked that over and 8 over. Also, the size of the engine has changed and there 9 are cases that that horsepower engine just wouldn't fit 10 anymore. So there are three things that get in the way. 11 Yes, Dr. Burke.

12 CHAIRPERSON LLOYD: Dr. Burke.

BOARD MEMBER BURKE: They have those same problems when they repower old boats and they change the transmissions and the drive shaft. And you put a longer driveshaft on the prop and you change the universal joint and bingo it works.

18 MR. SLIDOLSKY: I didn't say it was impossible.
19 BOARD MEMBER BURKE: I mean Detroit Diesel is
20 putting D decks in boats every day now.

21 MR. SLIDOLSKY: I didn't mean to imply that it 22 was impossible to do, but when you start talking rear 23 axles, transmissions trying to maybe reconfigure for it to 24 fit, it adds to the cost. It takes away the cost 25 effectiveness. And both in 2004 and what EPA is proposing

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

279

1 in 2007, those are major challenges to our industry, and 2 we're accepting that challenge, and we're putting our 3 resources in to meeting those challenges. And that takes 4 away from the ability to do these things that, yes, would 5 give some modest gains. But in the long run, I think 6 we'll be best served with cleaner engines. And, yes, Tom, 7 I still have gotten there.

8 CHAIRPERSON LLOYD: I think we have two board
9 members that you have stimulated more questions.
10 Mr. McKinnon and Ms. D'Adamo.

11 BOARD MEMBER McKINNON: I wasn't aware that there had been major changes in transmissions. So, now I'm a 12 13 little concerned here. You were out of the room and in 14 fairness I'll kind of wrap the whole thing up as I heard 15 it. What caused you to be asked to come back is there is 16 a great concern that we are budgeting \$15 million for what 17 would effectively be a monopoly for you for the next couple of years. 18

And, you know, frankly, I don't believe that's going to be true. I think there's other companies that are coming along and I think at least one is going to come to the market. But albeit, it is a fair question, if that's what's happening and you're going to benefit from 15 million being invested and possibly you're the only people to supply the engines. The question that was

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

280

raised is, you know, if you're getting that benefit, is 1 there something you can do to help California? 2 3 And one of the suggestions that was laid out there in the testimony was repowering of some trucks in 4 California. And I mean if you're allocating X number of 5 engines so you sell them with the whole bus or you 6 maximize your profit here or whatever, if that's the 7 8 answer, that's the answer.

9 But if you have the ability to produce more 10 engines and do repowers where it makes sense, you know, we 11 have probably several hours more of testimony, maybe the 12 thing to do is kind of talk about it and check back in and 13 come on back in a couple of hours after talking it over. 14 I don't know.

15 I think it's a fair question. And transmissions 16 not fitting up bothers me as an answer.

MR. SLIDOLSKY: Well, I listen -- many things with the electronic control of the engine, the transmission starts to begin to tune in to what those electronic signals are, so there are some differences there.

In fact, we're finding the choice of transmission as we begin to certify engines in the light-duty marketplace is very dependent on how the transmission is configured. So that is becoming a critical parameter in

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

281

1 reducing emissions as just emissions design.

I think the real critical issue that I was hearing from you is that you don't want to give International a monopoly. You know, we worked very hard on this project, and the real motivation for this project was just to show what diesel is capable of. And we have jumped the gun.

8 A .01 particulate standard is something that 9 wasn't supposed to come into being until 2007. And we 10 will be offering that next year. Now, the kinds of things 11 that we have done, to do that is what you heard the 12 after-treatment folks giving testimony, and they have this 13 after-treatment device. Other engine manufacturers are 14 fully capable of going to these same suppliers, getting 15 these same particulate filters and putting them on and 16 achieving the same result.

It think the added thing that we have done in recognition of your concerns, as was pointed out, a four gram NOx engine, we have worked with what we could to take it from four to three grams. So those are things that we have done. We've heard Cummins say that they could even do more with the NOx. So what is the issue with them putting on a particulate filter and competing in that same business?

25 So those opportunities have been there. We've

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

282

1 shown the way for years now and other engine manufacturers 2 have had the opportunity to do exactly the same thing. 3 And it's my understanding that DDThat is coming out with 4 exactly something similar for transit buses. So I don't 5 think it is a monopoly that's been, I think, unfairly 6 characterized.

7 CHA

CHAIRPERSON LLOYD: Ms. D'Adamo.

8 BOARD MEMBER D'ADAMO: I view today's proposal as 9 just one in a series of many building blocks. This issue 10 first came before us when, I think it was in January of 11 this year, when we had the transit rule before us. And 12 we've felt that we needed to grapple with school buses, 13 but there was a problem with funding.

14 Now, we've come up with a way to resolve or at 15 least begin to resolve the funding issue. And in doing 16 so, we've got a whole other set of issues to deal with. 17 I'm totally comfortable with what we have, because I think 18 that it strikes a balance. But the reason I think that it 19 strikes a balance, even though there may be a monopoly for one company, it doesn't really matter to me, because we 20 21 have the next building block.

And the next building block that's going to come before us is going to be a retrofit program, a regulation on diesel engines. So it's crucial in my mind that whatever we do now supports the next stage. And if we are

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

283

1 going to reward your company -- I think your company ought 2 to be rewarded. But if we are going to do that, then I 3 think that we also need to gain in the next step far 4 beyond school buses when we go to the regulations that are 5 going to appear before us within the next year or two.

6 And so I think you ought to consider what Mr. 7 McKinnon has raised, maybe take a little bit of time and 8 go outside, see what you can do to help us out in the 9 future on some of these other goals, so that you can 10 benefit now, kids can benefit and then the next building 11 block can also be achieved.

12 MR. SLIDOLSKY: Well, I certainly hear your 13 message loud and clear. Unfortunately, the folks that 14 have the ultimate decision-making in what you're 15 requesting have probably all gone home, because back in 16 Chicago it's 7:00 p.m. And so coming back in a couple of 17 hours, I'm just simply not going to be able to reach someone. And I think it would want to be a studied 18 19 response.

20 CHAIRPERSON LLOYD: We'll be here tomorrow. I 21 think you will be, too.

22 MR. SLIDOLSKY: Yes, I am, Dr. Lloyd. I will be 23 here tomorrow. And I will make that commitment to try to 24 get ahold of somebody tomorrow morning on that particular 25 issue.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

284

But, you know, we have given something to build with the particulate filters. The kind of work we've done I think for EPA to propose in 2007 that all diesel engines should meet a .01 standard. And because of what we're doing and the pioneering work that we're doing, it's going to allow everyone to have a great deal of confidence that this is a viable way to reduce particulate matter.

8 So I think that is, I think, is positive that we 9 have done and a reason why we should be rewarded. 10 CHAIRPERSON LLOYD: Professor Friedman had a 11 question.

12 BOARD MEMBER HUGH FRIEDMAN: I share my colleague's uneasiness, I guess, is the way to put it, 13 with the fact that in looking at what is available 14 15 presently now, you have now the best to offer. You've set 16 the standard at some expense and you're to be 17 congratulated for doing it. Its not as far as we want to 18 get, but it's the best that there is. It's very close to 19 the best there is in any technology.

I don't call that a monopoly. To me a monopoly is granting an exclusive right legally without competition. As you've made it clear and others have made clear, competition is free to compete. I don't consider that we are showing favoritism. Our goal is to get the best we can for the public, get the biggest bang for the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

285

1 buck. You happen to have it available.

I don't know the reasons why others don't or chose not to. But there are lots of companies out there and if they see money in it, I'm sure that they'll be throwing some money to get there. And there may be plenty of time. And as others have pointed out, this is the first round.

8 So while I wish there were more companies who --9 there were, if you will, choices whether to deal with 10 Chicago or deal with Detroit, I don't see your company's 11 name here, other than that you've appeared. You've been 12 identified as the source available.

13 But I think that's the, I think, a de facto 14 product that you have developed, but you don't have the 15 only patent on it. Or at least whatever patent you have, 16 I assume others can replicate and are talking about even 17 beating you in a few years. And, hopefully, that competition will continue. And I think it's not only 18 19 because of the efforts of this board and staff before I joined it, but because of the efforts of the 20 environmentalists, those concerned about our environment 21 22 and others who have been putting the pressure.

And I understand why everybody is trying to get a little bit of grasping about this money. It's a limited pot. And I can sure understand why the Legislature passed

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

286

the buck to us --1 2 (Laughter.) BOARD MEMBER HUGH FRIEDMAN: -- to allocate it. 3 4 But that said, I think we all I think at some level, should be a little bit self congratulatory, and I think 5 particularly those of you who have been testifying here on 6 all sides of this, to feel that you've all played a real 7 8 role into bringing us to where we are now. And we 9 wouldn't be here if it weren't for everybody in this room 10 probably.

11 So that said, I share my colleague's uneasiness 12 that there's only International truck currently having a 13 monopoly, but I don't think that that should, in my view, 14 should stop us if we want to preserve a viable replacement 15 bus diesel alternative. And I'm hopeful that there will 16 be choices by the time this money actually has to be 17 contracted.

18 CHAIRPERSON LLOYD: Thank you. I would like to 19 now, if I could, now take a ten-minute break, and give the 20 reporter till 5:15.

21 MR. SLIDOLSKY: May I just respond a little 22 quickly on this. I promise, you can watch the clock. 23 I'll be less than a minute. You know, we are looking at 24 other applications for Green Diesel. And we're talking 25 about a difference between three grams and 2.5 grams.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

287

1 My company has signed on to the challenge to get 2 to .2 grams. And so there are better things coming and 3 we're working at that. It doesn't stop at Green Diesel. 4 And thank you for your indulgence. 5 CHAIRPERSON LLOYD: Thank you. It was our 6 questions. I do have a request here for one more witness,

7 Bonnie Homes-Gen. I know she's got a child to take care 8 of, so I'm going to take this one last witness, then we'll 9 take a ten-minute break.

MS. HOLMES-GEN: Thank you. I said good

10

11 afternoon here in my testimony. I guess it's good 12 evening. My name is Bonnie Holmes-Gen. I'm Assistant 13 Vice President for Government Relations with the American 14 Lung Association of California.

And I, first of all, want to join the chorus of those who are very appreciative of the \$50 million for this program and certainly want to work together with you and the Governor to increase that amount in the future, so that we can make a much bigger impact on children's health. We absolutely have to get more money to buy more buses and have more impact.

But today we're here to testify on the proposed distribution of funding for school buses. And what we're asking for you to do today is to increase the funding available for the cleanest school bus technology,

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

288

alternative fuel, compressed natural gas technology and to
 dramatically reduce or eliminate the funding allocated to
 low-emission diesel technology.

The American Lung Association of California is involved in this issue, because we are concerned about air pollution and children's health. Each diesel school bus idling next to a school bus -- next to a bus stop or a school yard is having a direct impact on the lungs and breathing ability of children.

10

And we know from recent research that impacts to

the lung from air pollution, may not only cause acute symptoms, but contribute to chronic diseases and reduction of lung capacity over the lifetime of the individual. I'm not going to read my entire text on health effects of diesel. I understand that you know very much about the health impacts and appreciate all the work that you have done to list diesel as a toxic air contaminant.

But I do want to say that we have major concerns about the health effects of diesel exhaust, that we're not prepared to call any diesel technology, at this point, clean or green. Although we acknowledge there certainly have been improvements and progress in producing lower emission diesel technology.

And we believe that using the terms clean or green can be very misleading, because we do have so much

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

289

information about the toxicity of diesel exhaust. And no
 testing has yet shown that lower-emission diesel
 adequately reduces the toxic risks. What I would like to
 do is just set out a few principles for the Board to
 consider while you are making your decision today, this
 evening.

7 One, that your decision for new purchase of 8 school buses with public funds should be made according to 9 determining which buses are superior from a public health 10 perspective. And we view that as looking at a per bus 11 comparison of emissions and benefits that are available.

And I wanted to say briefly on the issue that we have to consider in-use emissions, that we cannot put the in-use emissions issue to rest until we have adequate bus-to-bus testing between CNG and Thater diesel technologies.

The limited testing that's been done in San Diego on two buses is not sufficient. And I wanted to point out that the staff report certainly does not put this issue to rest. It acknowledges that there is an in-use discrepancy and that that's a problem with transit buses, and that it's unknown, the degree of the problem for school buses. The staff report says on page 22, "At this time,

24 there is insufficient information to determine if there is 25 a significant in-use PM discrepancy with school buses, as

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

there is with transit buses."

1

290

2 So, you know, we can't put it to rest as the representative from International calmly suggested that we 3 4 could do. We definitely need to have more information. 5 So, first, look at a bus-per-bus comparison getting the most emissions benefits on a bus-per-bus 6 comparison, especially because this decision does involve 7 8 the expenditure of limited public funds. Please consider 9 which buses will be the cleanest over the long-term. 10 These buses will be on the road for 15, 20 years

or longer, and we believe the alternative fuel 11 technologies do have the best long-term emissions benefits 12 13 because they do not have similar deterioration problems to diesel buses. We don't believe the Board should establish 14 15 any special standards to allow the low-emission diesel 16 buses to receive funding in this program. You know, 17 you've heard a lot of testimony about the International bus and how it cannot meet the 2.5 gram standard. And, 18 19 you know, we are very concerned about weakening that standard to 3.0 grams for one company. 20

And finally, we believe the Board should follow its adopted resolution and replace diesel fuel school buses to the degree that you can with cleaner alternative fuel buses. I did want to read two sentences from the American Cancer Society, if I can change hats. I have

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

291

submitted a letter from the American Cancer Society, and 1 they are saying, "We urge you to restrict the purchase of 2 new buses to those that utilize technologies that meet or 3 exceed natural gas school buses and establish a program 4 that assures buses remain clean over the lifetime of their 5 use. Looking to the future, we ask that you take action 6 7 that will result in fewer cancer cases in California." 8 Thank you for the indulgence of your time. 9 CHAIRPERSON LLOYD: Thank you. Any questions or 10 comments?

11 Thank you.

12	With that, we will take a ten-minute break till
13	5:20 to allow the court reporter here to take a rest.
14	(Thereupon a brief recess was taken.)
15	CHAIRPERSON LLOYD: Can we restart? We have
16	Sandra Spelliscy, Gail Ruderman Feuer, Julia Levin, Jesus
17	Santos-Guzman.
18	Just wait a minute. We're not timing yet.
19	Sandy, we have now moved the light now and it is
20	actually working.
21	MS. SPELLISCY: Okay, lucky me.
22	BOARD MEMBER HUGH FRIEDMAN: Your time is up.
23	CHAIRPERSON LLOYD: The other thing, remember, I
24	have this, you can't speak.
25	MS. SPELLISCY: Good evening, Mr. Chairman and
	PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

292

1 Members. My name Is Sandra Spelliscy, and I'm the General 2 Counsel with the Planning and Conservation League. And thank you for the opportunity to address you on this. 3 4 And I want to make it very clear that our goal today is to help craft a program that we can all support 5 6 and we can move toward to create it as a long-term program 7 and continue to seek additional funds, because we really believe that this is a program that we need to maintain. 8 And we want to be able to support it over the long term. 9 10 I'm going to spend my time just commenting on

some of the remarks that have already been made today. 11 And I'd like to start recognizing that several Board 12 13 members have picked up on what we think is the anomaly of the staff recommendation in terms of the money for new 14 15 diesel purchases. And that is that we could find ourself 16 in a situation where several months after the time that 17 the last Green Diesel bus, the 3.0 gram bus, is delivered to a school district, that bus which will be on the road 18 19 for probably 15 or 20 years will actually be dirtier than the new diesel engines that will be coming on the market 20 21 by five other major manufacturers in California.

22 So we think that that's one of the problems with 23 carving out this 3.0 exception. And we do have a problem 24 with backsliding on the low optional NOx standard. As you 25 know, that standard was devised in part in order to have a

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

293

1 standard that we could use to spend air quality incentive 2 funding. And that's exactly the case that we're dealing 3 with here today. We have incentive funding. We've never 4 spent it on a situation where we go above that low 5 optional NOx, and we don't think that should be happening 6 today.

7 On the other hand, we, too, want to get buses on 8 the road as soon as possible. So we don't think that we 9 should be delaying purchase of buses, but we think that we 10 should use the money now to purchase the cleanest buses on 11 the market now, and then, you know, go forward, and if 12 other technologies come forward that can meet tough 13 standards, then hopefully we will have money, at that 14 point, to, you know, spread around.

15 We don't want to strand school districts that may 16 not be able, for whatever reason, to use alt fuels, 17 although we believe alt fuels are the superior technology here. But we are willing to see some money spent as an 18 19 exception to, you know, a general push for alt fuels in terms of new purchases, but we would like to keep that 20 very small. And we've mentioned the number of \$5 million. 21 22 And that money could be coupled with the money in the small district program that the Department of Education 23 has already. And so that would give a fair amount of 24 25 money to smaller districts that, for whatever reason,

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

294

1 can't use CNG.

2 I want to get back to the issue of in-use emissions, because I think that issue got muddled a little 3 bit here this morning. And I also want to go back and hit 4 on what we know that's in the staff report, and what 5 they've said is that there's insufficient information at 6 this time to determine if there's a significant in-use PM 7 8 discrepancy with school buses as we know there is with 9 transit buses and other heavy-duty diesel engines. 10 And I would just submit to you that insufficient 11 information is not an adequate basis for making a \$15 12 million policy decision. We're just not there in terms of 13 the information. We're projecting in the staff report 14 long-term PM reductions based on certification numbers. 15 And I just don't believe that that's the correct approach, 16 because we know that certification numbers don't reflect 17 reality.

So we take exception with what the staff report says in terms of what the overall PM reduction would be if you allocate \$15 million for diesel.

I also want to just briefly say that there's a few. And I know I'm getting close to the end, there's a few things that haven't been discussed here today that I just want to highlight, because I think this Board should be considering these issues in every policy decision that

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

295

1 it makes. And those are the issues of fuel diversity,
2 energy security and basically continuing to move our fleet
3 towards zero and near zero emissions. And we know that
4 promoting alternative fuels gives us a leg up on all three
5 of those issues. And that's another important reason why
6 we're promoting that the majority of the money should go
7 to alternative fuel buses for new purchases.
8 CHAIRPERSON LLOYD: Thank you, Sandy.

9 Gail Ruderman Feuer, Julia Levin, and Jesus10 Santos-Guzman, Marta Arguello.

11 MS. FEUER: Good evening, Dr. Lloyd, members of the Board. I am Gail Ruderman Feuer. I'm a senior 12 13 attorney for the Natural Resources Defense Council. I'm here on behalf of NRDC and our 80,000 That members. We 14 15 appreciate all the work your staff and this board has 16 done, all the time they have spent developing the 17 proposal. Unfortunately, as you know, we and many in the environmental and public health communities disagree with 18 19 the proposal to allocate money to new diesel buses as opposed to spending money, both on alternative fuel buses 20 21 and on retrofitting of existing diesel buses.

We don't question that the International bus is much cleaner than the smoking diesel buses on the road today. And we commend them for that. That's a good thing. But it's not certified. And when it will be, it

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

296

will not be as clean as alternative fuel buses. And we
 think we should not be spending taxpayer money to
 subsidize a bus which is not as clean, particularly when
 it comes to our kids.

5 This Board in 1998 adopted a resolution to set a 6 goal to quote "replace diesel fueled school and public 7 transit buses with cleaner alternative fuel buses," close 8 quote.

9 We urge you not to change course with that10 resolution. This year your Board adopted its transit bus

11 rule. And earlier Board Member D'Adamo said that this 12 should be a building block as part of that transit bus 13 rule. And we absolutely agree. And we've heard the 14 diesel industry come up and say well, the proposal by 15 staff is consistent with the transit bus rule.

16 I'd like to focus on that issue, because we think 17 the transit bus rule is precisely you should not go with 18 the staff proposal, because they are inconsistent for four 19 very serious reasons.

The first, the transit bus rule does create two paths. We, in the environmental community, accepted that. And as you may know, we originally were alt fuels only and we changed our position and said no, if diesel cleans up its act, we can support it. The two-path concept was okay with us.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

297

But that rule, in its staff report this Board said, was designed to create incentives for transit agencies to use the alternative fuel path. And in particular, from 2004 to 2007 if you look at the standards for diesel and for alternative fuel, they are not the same.

Diesel has to meet a .5 gram NOx standard.
8 Alternative fuels only have to meet 1.8 grams on NOx. On
9 particulates, diesel has to meet .01, natural gas has to
10 meet .03. That's because this Board decided it was very

11 important to incentivize alternative fuels. That's not 12 what you're doing here. You're putting them on an even 13 playing field.

14 Second, if transit agencies choose the diesel 15 path, there's a built-in environmental benefit that was 16 sold to us. And that is zero emission buses. In 2003, 17 larger transit agencies have to buy 3.0 emission buses. 18 In 2008, they have to buy 15 percent of their fleet with 19 zero emission buses.

If you choose alternative fuels, you have no obligations to buy zero emission buses until 2010. Again, there was a built-in environmental benefit, again, to encourage transit agencies to go the alternative fuel path.

25 Third, the transit bus rule was just that, a

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

298

1 rule, a regulation designed to set standards. What you're 2 doing today is deciding how to spend taxpayer money. And 3 I submit a more stringent standard should apply where 4 you're spending taxpayer money which should be used to 5 incentivize the cleanest technology.

6 And fourth is this is about kids. And, again, we 7 believe the most stringent standard should apply when 8 you're dealing with children's health.

9 Our concern is --

10 CHAIRPERSON LLOYD: It's been red for awhile.

11 MS. FEUER: It's been red. I'm sorry. Let me just wrap up. Our concern is if you adopt the staff's 12 13 proposal you will create an incentive for school districts to buy more diesel buses instead of alt fuels for two 14 15 reasons. I'll be very quick.

16 One is they have to spend \$25,000 of their money 17 either way. They can spend \$25,000 for diesels, \$25,000 for alternative fuels. If they go the alternative fuel 18 route, they have to deal with the infrastructure of a new 19 fuel. Why would they pick alt fuels? You're almost 20 21 encouraging them to go the diesel path.

22 Second, let's say they choose the clean path. If school districts start choosing the clean alternative 23 24 path, they're going to use up the money and the next ones 25 in line are going to have to go diesel. Again, you're

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

1

299

going to push them to the diesel path. 2 We urge you either to go back to the staff proposal in September which was a 2.5 gram low NOx 3 4 optional standard. We think that's fuel neutral. In fact, we believe if you set that standard, they will come. 5 The diesel manufacturers will find a way to get their 6 engines to meet the 2.5 standard, or we support keeping a 7 8 50/50 split, alternative fuels, diesel, but put the diesel 9 money into retrofits. You're going to get more PM 10 reductions. It's a better deal and you won't be favoring

11 one manufacturing with a weaker standard.

12 CHAIRPERSON LLOYD: Thank you, Gail. I think the 13 issue that certainly I grappled with is the way in which 14 people flip-flop back from NOx to particulates and 15 confusing those. And the critical area here for children 16 is for toxic air contaminants, the particulates there. 17 And you can't just flip the NOx switch on and off. It's a definite issue. And so I think that's what you see when 18 19 the staff talked about it. What you get was basically bang for your buck on some of those. So that's what I 20 struggled with personally, because we can't just do that. 21 22 MS. FEUER: And we agree. We basically want both. We want to see each bus to be cleaner. We think 23 in-use natural gas is cleaner on both. 24

25 CHAIRPERSON LLOYD: But, again, I hear these

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

300

things, but I'd like to see some data which proves that.
 We don't have the data for either of those and we have to
 make some policy decisions here.

4

Any questions from the Board?

5 Supervisor Roberts.

6 BOARD MEMBER ROBERTS: This idea of the two 7 categories, 25 million in each, and I think what you're 8 suggesting is that you'd have alternative fuels for half, 9 the other would be diesel. But within that diesel you'd 10 have the option of retrofitting or buying. 11 MS. FEUER: Well, our proposal is that the \$25 million pot would be specifically for retrofits. One 12 13 thing we have proposed in thinking about that is we recognize there's a concern about rural school districts 14 15 who may not be able to build the infrastructure. Our 16 proposal would be to set \$25 million for retrofits, but to 17 direct your staff to develop an exemption, if there are 18 rural school districts, school districts which cannot --19 did I mean CNG.

Okay, \$25 That for CNG, 25 That for retrofits in 20 the diesel pot, so you're splitting 25 in each. And our 21 22 point was in the diesel retrofit kitty that perhaps a small portion of this money could be available for new 23 diesel buses, but only if it were a rural school district, 24 25 a school district which met a specific quideline for why

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

301

it could not buy new alternative fuel school buses. 1 And 2 you'd have a cap on how much would be spent on that.

3 But we oppose the use of any of that 25 for a 4 school district which can meet the 2.5 standard and buy a 5 cleaner bus.

BOARD MEMBER ROBERTS: I'm wondering if it would 6 work significantly different if you just left it up to the 7 school district? Are you afraid they would end up 8 9 buying -- using a majority of that money for the diesel 10 buses rather than doing retrofit?

MS. FEUER: Our concern is that school districts not be allowed to choose a dirtier technology because it's cheaper for them, because you're not creating the incentive. We think that this board should push them to the cleaner technology, unless there's a reason they can't go there.

BOARD MEMBER ROBERTS: Some overridingcircumstance that they couldn't?

MS. FEUER: That's right. And the same way with a lot of transit agencies. And supervisor, you're on a transit agency that has chosen a clean fuel path. We have been incentivizing transit agencies to go the alternative fuel path. We want you to incentivize school districts the same way to go the clean fuel path.

25 BOARD MEMBER ROBERTS: I just happen to be on one

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

302

that did choose the CNG, but That seems to me here -what's bothering me here is the sort of limitation on the
retrofit part of this, where we have a smaller part for
retrofit and we've got an even larger amount set aside for
basically a technology and a company here. And I was
trying to think if there might be a way to do your 50/50
split, but we'll get to that. I'm not going to let go of
this.

9 MS. FEUER: We'd urge you to pursue that, because 10 we really think we should not be giving away \$15 million 11 to one company.

12	BOARD MEMBER ROBERTS: Well, what is so clear, if
13	we're talking about immediate environmental benefits, the
14	retrofit, which is the smallest part of this whole amount,
15	is the thing that would benefit us the most.
16	MS. FEUER: And we agree.
17	BOARD MEMBER ROBERTS: We've got this upside down
18	right now, but that's okay.
19	CHAIRPERSON LLOYD: One thing I must say, I'm
20	very impressed that after one meeting of the International
21	Retrofit Committee that Mike is chairing, that now we have
22	you endorsing diesel retrofits. We've come a long way, so
23	I appreciate that.
24	MS. FEUER: Yes. We actually have. You know, in
25	all fairness, your staff has spent a lot of time with us.
	PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345
	303
1	We have listened and we are more supportive
2	CHAIRPERSON LLOYD: I was sincere.
3	MS. FEUER: of retrofits. We still would like
4	to see more testing.
5	(Laughter.)
6	BOARD MEMBER DeSAULNIER: It's hard to tell.
7	(Laughter.)
8	CHAIRPERSON LLOYD: The facts are there.
9	BOARD MEMBER McKINNON: They endorsed our transit
10	rule, too.

11 CHAIRPERSON LLOYD: Yes, Supervisor DeSaulnier. 12 BOARD MEMBER DESAULNIER: I'd just be anxious to 13 hear Mr. Kenny respond to this, because it doesn't seem 14 like a bad idea and I'm sure you thought about it, didn't 15 you?

16 EXECUTIVE DIRECTOR KENNY: Actually, yes, we 17 have. We've thought about probably every permutation you 18 can think about, and probably every permutation is being 19 presented to you today.

20 CHAIRPERSON LLOYD: Could I exercise the
21 Chairman's prerogative here? I think it would only be
22 fair to -- we have not heard from the school districts at
23 this stage, and we've got a bunch of those to testify.
24 What I would like to do then is ask Mr. Kenny to
25 come back after they've testified, Supervisor, if that's

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

304

1 okay with you. 2 BOARD MEMBER DeSAULNIER: Certainly, Mr. 3 Chairman. 4 (Laughter.) 5 BOARD MEMBER DeSAULNIER: When you put it that 6 way. 7 (Laughter.) CHAIRPERSON LLOYD: Thank you very much. 8 9 Julia Levin. MS. LEVIN: Good evening. My name is Julia 10

11 Levin. I'm the California Policy Coordinator for the 12 Union of Concerned Scientists. We're a national nonprofit 13 organization with nearly 15,000 members in California.

On behalf of those members, I would urge you to 14 15 use the clean school bus money for the cleanest possible 16 school buses, which we firmly believe are natural gas 17 buses. And if you must use a small part of the money for diesel in rural school districts, that it be truly an 18 19 exception to the rule and not merely a third of public money which is supposed to incentivize cleaner alternative 20 21 fuel buses.

There are a whole host of reasons why we think this is so critical in the decision that you make tonight, but I'm going to focus on two right now.

25 Now, despite the testimony of diesel engine

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

305

1 manufacturers, and International in particular, real 2 world, in-use emissions from diesel buses are 3 significantly higher and more dangerous for our children 4 than real world, in-use emissions for natural gas buses. 5 And I'll be going into that in just a moment.

6 But the second reason, which is also equally 7 important, is that natural gas will lead the way to fuel 8 cells, which this board has recognized is the end goal for 9 both transit and school buses. Those will be the cleanest 10 buses on the road and we hope to see them soon. 11 On the first point, although we do applaud the diesel makers for building much clean engines and they 12 13 have come a long way, they've got a long way yet to go to 14 catch up to natural gas. There was testimony earlier 15 about an ARCO/BP test conducted in San Diego. That test 16 used exactly two buses. No statistician would find that 17 test definitive on the topic of emissions from Green 18 Diesel, so-called, Green Diesel buses.

19 The test in San Diego did not use the most 20 demanding urban drive cycle. It did not include cold 21 starts. It used two very new buses with very new traps. 22 It is not a safe assumption to make that emissions would 23 be the same in the real world in urban and much more 24 difficult driving conditions.

25 We strongly urge the Board to commission or to

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

conduct a side-by-side comparison of CNG with That cleaner
 diesel. But we do not feel that based on the current
 evidence that this Board can reach the conclusion that
 diesel emissions would be the same or lower.

5 And, in fact, I would like to read to you from 6 the staff report on page 22, that the staff recognizes 7 that data indicate that real life PM emissions from diesel 8 transit buses are greater than expected by the 9 certification values, while CNG engines produce 10 significantly in-use PM emissions.

306

11 The staff goes on to say that in the transit bus field, they would not be surprised if diesel transit buses 12 13 have ten times greater PM emissions than in certification, 14 ten times. This is very significant. You heard testimony 15 earlier today, I think it was from International, but I'm 16 not positive that the emissions in-use in real world 17 emissions would be substantially similar or the same as 18 certification.

Your own staff has said that they could be as much as ten times higher for diesel transit buses. We're talking about the same engines.

There has been a side-by-side comparison done of trucks, and using the emissions data from trucks, if we reduce the particulate matter by 85 percent, which is what the new traps will have to do, the particulate matter

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

307

1 emissions from diesel school buses would still be double 2 the particulate matter emissions from CNG buses. That is 3 based on the cleanest newest engines going into trucks in 4 a side-by-side comparison. You're talking about double 5 the emissions and affecting our children.

6 In the area of smog-forming pollutants, which are 7 NOx and hydrocarbons, the difference is a little smaller, 8 but it's still significant. There are -- using the EPA 9 calculation method for NOx, the difference would be 25 10 percent. Green Diesel, so-called Green Diesel, would still emit 25 percent more NOx and hydrocarbons than CNG buses. This is significant both because it leads to smog, but also because NOx itself directly impacts children's lungs, according to a recent study by the University of Southern California School of Medicine.

16 CHAIRPERSON LLOYD: Again, I don't think you have 17 to tell this Board what we know. We funded that study and 18 we've had reports on that.

MS. LEVIN: I'd like to leave you with one final point. And that is natural gas leads to fuel cell buses, which you all know is where we want to end up, at least in the foreseeable future. Not only does it use a similar fuel, but it uses much of the same infrastructure, particularly the maintenance facilities, which are the most expensive part of a CNG infrastructure. Those costs

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

308

1 would be directly offset as we move towards fuel cells.
2 In addition, the pipeline, the compressor, the
3 pumps are all very similar or the same. So I'd like to
4 close by urging you to choose the cleanest possible school
5 buses. There is no question right now that those are
6 natural gas.
7 Thank you very much.

8 CHAIRPERSON LLOYD: Thank you.
9 Any questions?
10 Thank you.

I presume staff would like to respond to this continued mention of in-use, and I presume we've got some 12 13 of the finest staff in the world that can answer these 14 questions.

15 DEPUTY EXECUTIVE OFFICER CACKETTE: Yes, we do. 16 The quote came out of the Transit Bus Regulation that the 17 Board considered early last spring, or the winter time, I guess it was. And with a nontrap equipped bus, there was 18 19 comparisons that showed that when the diesel bus went on a very aggressive cycle, like you'd have with a transit bus 20 where it's going start, stop, start, stop, that it did 21 22 produce a lot more particulate compared to its emission standard, which is done on a much more easy test, and that 23 the natural gas bus did not exhibit that characteristic. 24 25 And that's where this idea, that in-use emissions could be

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

309

much higher in real use in a transit bus, came from. 1 2 First of all, these school buses don't operate like a transit bus. The school bus cycle is much more 3 like the normal driving cycle we put heavy-duty trucks 4 through. And second of all, we've gone and tested one of 5 the trap-equipped Green Diesel buses on the various types 6 7 of cycles. And we've tested on the transit bus cycle. 8 And we've tested on what they call the school bus cycle, 9 which is more equivalent to the certification type cycle 10 we use.

11 And, basically, its emissions are essentially the same at around .02, .03 grams per mile, which is the kind 12 13 of level we measured on a CNG transit bus, for example. 14 So I think what happens, the technical reason for it, is 15 that the trap is to capture the extra particulate that 16 comes out and then eventually regenerate it. So it acts 17 as somewhat of an absolute filter, not completely, but it's able to pick up the extra emissions that come from 18 19 the more aggressive driving, but maybe from a more fundamental standpoint the transit buses don't tend to 20 have as -- or I should say the school buses don't have 21 22 these aggressive driving cycles as the transit buses do. 23 CHAIRPERSON LLOYD: Thank you. MS. LEVIN: Can I make two quick responses on 24

25 that?

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

310

CHAIRPERSON LLOYD: One. I think, again, in this 1 particular case, we've got experts here and I understand 2 what you're saying, but I think we have to move ahead. 3 4 MS. LEVIN: Okay. I would just say that your point is well taken, but even with the 85 percent 5 reduction for traps. 6 7 CHAIRPERSON LLOYD: I thought -- thank you. 8 Jesus Santos-Guzman, Marta Arguello, Tiffany

9 Schauer.

10

MS. ARGUELLO: He agreed to switch with me,

11 because I have to catch a flight.

12 CHAIRPERSON LLOYD: You are?

13 MS. ARGUELLO: Marta Arguello.

14 CHAIRPERSON LLOYD: Oh, okay.

MS. ARGUELLO: I am Marta Arguello. I'm the Environmental Health Coordinator for Physicians for Social Responsibility. I am a health educator by training. Our organization represents over 2,000 physicians in the State of California who, much like yourselves, are charged beyond their clinical practices with foreseeing and forestalling damage to the environment and to human health.

And as such, we're here to encourage you to go with the cleanest burning fuel alternatives, which is compressed natural gas.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

311

And I want to put, sort of, that hat aside for awhile. And this is my first experience here. Like I said, I'm a health educator by training, and I spent many years working for the National Cancer Institute, a volunteer for the American Cancer Society. I've worked many years with asthmatics and their families. I've worked with the American Lung Association.

8 So I'm a little bit troubled after sitting for 9 four hours, this is my first hearing of this type, of sort 10 of the costs, discussion of costs and benefits of diesel 11 and back and forth, and nowhere have we really talked 12 about the health impacts.

And I know that you're well aware of them, but I think it's important for us to take a moment and remember that we're really talking about the most vulnerable populations, and that's children, the elderly. And more importantly some of the trends that we're seeing with asthma are truly alarming when you think of inter-city communities.

20 Black and Latino Communities are severely 21 affected. If you're an African-American child between the 22 ages of 15 to 24, you're five times more likely to die of 23 asthma. These are the decisions that are important than 24 whether International has \$15 million to spend on diesel. 25 That is your charge, as physicians are charged to provide

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

312

1 the best medicine possible. The best medicine possible for California's air is compressed natural gas. 2 3 Thank you. 4 CHAIRPERSON LLOYD: Thank you. 5 MR. SANTOS-GUZMAN: My name is Jesus Santos-Guzman, pediatrician from the Coalition for Clean 6 Air. And I thank the chairman and Board members and other 7 8 representatives for the opportunity to talk in this 9 meeting.

10

I came here to ask this Board and the appropriate

agency to support the cleaner alternative technologies and 11 retrofits from the harmful effects of the diesel 12 13 emissions. Diesel emissions have been shown to contribute importantly to several health effects, like 14 cardio-respiratory, morbidity and mortality. It also has 15 16 shown to reduce the function and ability of the lungs to 17 respond on a daily basis. And also a higher prevalence of 18 several symptoms like bronchitis, coughing and several 19 others.

It also affects the development of kids. That not only affects the lungs but may also affect the entire economy, the entire kid and arrest possibilities for future development, academic development. The air pollution that received air particles and other emissions from diesel may contribute to more asthma in our kids and

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

313

asthma may make also our kids live to have more
 absenteeism, also to require more special programs and to
 require more medical assistance, so in some ways increase
 other costs as well.

5 This also has been proved to increase the risk of 6 cancer and some of the things that we can do to reduce all 7 these morbidity and cancer risks is to choose for kids the 8 best available technology, the most available one, the one 9 that has proved to reduce morbidity and cancer risks. And 10 so the point to be underlined is to use whatever is 11 available and is proven to reduce all these risks.

12 So that's my statement.

13 CHAIRPERSON LLOYD: Thank you very much indeed.
 14 Next, we have Tiffany Schauer, Stephen Rhoads,
 15 Sal Villasenor.

MS. SCHAUER: Okay, my speech is now substantially reduced.

18 CHAIRPERSON LLOYD: Thank you.

MS. SCHAUER: I just wanted to say a quick word to you. My name is Tiffany Schauer and you may or may not be aware. I recently stepped down from being vice chair of the Air Quality Management District Hearing Board. And at that time, I would attend the National Judicial College where they'd train judges to adjudicate cases.

25 And judges from all over the country come there

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

314

1 to be trained. And one night I was out with a judge from 2 Alabama, and she looked at me, and I was saying how hard 3 it was and I wanted to be fair and wise. And she said, 4 "Judge Schauer, there's one thing you ought to know. Any 5 Judge ain't got no friends." And you must feel like that 6 today.

7 (Laughter.)
8 MS. SCHAUER: But you do.
9 CHAIRPERSON LLOYD: Could you say that again,
10 that was good.

(Laughter.)

MS. SCHAUER: I don't think I can, but it stayed with me, and I think it should stay with you, that you do have friends here and we're here to help you, and that's our job. And I know that your job is very difficult too. And I have been in those chairs, and it's tough. And I appreciate that you're willing to take and make the sacrifice to do it.

Okay. With that said, my new hat I wear is Executive Director of Our Children's Earth Foundation. Now that organization is new. I'm not new. I worked at EPA as an Air Enforcement attorney for five years. After that, I represented industry at Brobeck, Phleger and Harrison on air issues. Then I sat on the Air District Hearing Board for three years.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

315

1 So I would like to think I'm relatively 2 experienced. Although no one in air ever is. As the 3 staff I'm sure well knows, that this is complex, it's 4 tedious, it's probably more boring than election law. And 5 I want to thank you for doing your work too. And I know 6 how difficult it is to understand air and make good 7 choices and good policy.

8 I have a simple message and I think the power of 9 my message is, the mission of my group is to create a 10 cohesive voice among environmental organizations that

11

11 right now are disenfranchised and don't have a voice. I'm 12 here today to say I represent that voice. The voice and 13 the sentiment of the environmental community is enormous 14 and it's strong and it's heartfelt about this issue.

15 I have a sign-on letter that we put together in 16 less than three weeks when we were made aware of the 17 decision that was going to be made. It's representative of over 40 organizations. It compiles about -- we have 18 19 very conservative estimates, it compiles about 400,000 to 500,000 individuals. You have the support to make a 20 decision based on our discussions with the environmental 21 22 community. The simple message is you are fully supported to make a decision to protect our kids' health by 23 24 allocating the money for the purpose of clean school buses 25 that can certify today to the 2.5 NOx standard and the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

316

lowest certified and in-use PM emissions. Case closed. 1 2 If it can be certified, and side-by-side certified and in-use is lowest, we win. Right now you 3 don't have all the information you need to make that 4 decision, but you have to make a decision today. There's 5 a decision you can make next year. There's a decision you 6 7 can make after that. You've got time to help other fuel 8 producers and other manufacturers, but today you need to 9 make a decision with what you have in your hand and you 10 have that information.

11	We know that CNG can That those standards. We
12	have today that propane can also meet it. There may be
13	other alternatives after additional research is made. It
14	looks like, in my estimation, that the evidence is
15	inconclusive today for the advanced Green Diesel, clean
16	diesel, interim diesel. That's fair enough to be said,
17	and it is fair enough to recognize their efforts and it's
18	fair enough to reward them in other ways and other
19	programs, but just not today in this decision.
20	Thank you.
21	CHAIRPERSON LLOYD: Thank you very much.
22	MS. SCHAUER: Any questions?
23	CHAIRPERSON LLOYD: Stephen Rhoads, Sal
24	Villasenor and Dave Randall.
25	MS. SCHAUER: I'm sorry. Can I just make one
	PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

317

1 five-second statement. In addition to the sign-on letter, 2 we also have included in the packets over 500 E-mails of 3 individuals in support of our statement. 4 Thanks. 5 CHAIRPERSON LLOYD: Thank you. 6 Now, we hear from the school districts to see 7 what you really want. 8 MR. RHOADS: I'm the first one of the schools, 9 and I'm Stephen Rhoads. And first of all, I want to say

10 also that we are your friends, and we appreciate the

11 efforts that you are going through today in the 12 deliberations.

13 I am here representing the School Transportation 14 Coalition. This Coalition was founded by a John Mather, 15 Secretary of Education for the Governor. And when he put 16 it together, he wisely, as he usually does, put it 17 together to represent a broad spectrum of education people from employee organizations, like CTA and the CSEA, 18 19 administrators, transportation officials and 50 school districts. We represent over one-quarter of the school 20 21 enrollments in California and 28 counties.

We are troubled a little bit today by all this controversy, because this really should be a day of celebration. You are going to be cleaning up the air today and we are very, very thankful for that. You're

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

318

1 going to be putting school buses on the road that are 2 cleaner, some of your staff say ten times cleaner, than 3 the buses they're going to be replacing. They're safer, 4 much more safer, and they are also fuel efficient. And it 5 is something that all of you are going to be able and all 6 of us are going to be able to take great pride in.

7 The Governor proposed this 50 million in last 8 January's budget. That was the bare-bones budget. And it 9 was the single largest appropriation that was ever made 10 for school buses in California's history. And he did it 11 for the health of the children and the concern of the 12 children.

We are not proud of the fact that we have so many old school buses, and we are not proud of the fact that we are ranked dead last in this country for the number of kids that we bus. It's only 16 percent of our children. The average for the rest of the nation is 54 percent.

Our major concern has to do with the school match. As some of you probably know, I used to be the Executive Director of the California Energy Commission. But in my older days when my hair was very, very black and brown, I was actually a school finance expert. I was hired by A. Alan Post for that purpose in the Legislative Analyst's Office, and I was the chief witness for the Western Center of Law and Poverty on the Serrano issue.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

319

I might add I did that all pro bono. I was young
 in those days and kind of idealistic.

But one thing, I know a tad about school finance, and I do not know of a single school district that has allocated, set aside, any money for this match. And one of the reasons is because when the Governor proposed this program, he did not propose a match. He not only did not propose a match, but the language that accompanied the budget BCP was very, That clear. There will not be a school match. 11 And he gave a series of reasons for that. And 12 the reasons were because the school districts, unlike 13 other organizations, like transit districts, just have a very, very difficult time coming up with the money. 14 15 CHAIRPERSON LLOYD: Steve. 16 MR. RHOADS: The Legislature did not propose --17 did not even discuss a match in the legislation deliberations. And as the Legislative Analyst's office 18 19 was quoted earlier today, Chris Brown said that there would be no school match. 20 21 CHAIRPERSON LLOYD: Steve, three minutes has 22 gone. 23 MR. RHOADS: I'm going to make this quick. I'll skip a couple of issues. There's even some that say you 24 25 probably have the -- you need regulations to do this. PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 1 Today we'd get 3.17 percent for an increase in 2 transportation funding. And it's hardly enough to cover just what the bare bones of the gasoline increase is going 3 4 to be. 5 We have three proposals related to the match. One is we'd liked to see it eliminated. If you can't 6

eliminate it, we'd like to see you maybe have it reduced 7 to \$5,000 or \$10,000 per bus. 8

9 Third, this is my Serrano hat that I'll put on, 10 because people ask me well, can we think about the ability

320

11 to pay? Because we certainly don't want to come up with a 12 proposal where only the wealthy districts are able to take 13 advantage of this program.

And so I have a proposal for you to consider and 14 15 that is we have a form in school transportation called the 16 J141 form. And in that form we put in what the State 17 approved transportation calls for and we put in what the State approved reimbursements are. And my proposal is 18 19 this, that maybe you say hey, if a school district only has State reimbursements of 75 percent or less, then you 20 21 exempt them from the match. That will be a lot of districts, but that's because the encroachment is so bad 22 23 among school districts.

I had an issue on the traps. And my issue was --25 and I just want to take one minute on it because of

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

321

Professor Friedman's question that he asked earlier. 1 Originally, the staff's report said that the school 2 3 districts would not be awarded these traps until the year 4 2002 and 2003. The new version says December 15th, 2001. We are very supportive of traps and we want to do 5 everything to help the ARB with traps. It's just that you 6 don't need the money right now and we'd rather see that 7 8 money spent on school buses, and then we will work hard 9 with you during the school year. In fact, we can almost 10 guarantee you get 10 or 20 million during this next budget 11 cycle and it won't delay your trap program at all.

12 Thank you very much.

13 CHAIRPERSON LLOYD: Thank you very much. 14 MR. RHOADS: I'm going to take one more thing, 15 just if I can. We want to thank the staff, if I can, just 16 for one second. School district people and transportation 17 have a tendency to be a little skeptical of coming to 18 Sacramento. And I have been told this many, many times by 19 many of the members. They are really appreciative of the staff. You listened. You made lots of changes and they 20 21 want to thank you for that. 22 Thank you. 23 CHAIRPERSON LLOYD: Thank you, Steve.

24 We've got Sal Villasenor, Dave Randall, Doug25 Snyder.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

322

MR. McFADDEN: Mr. Chairman, thank you. I am not
 Sal Villsenor.

3 CHAIRPERSON LLOYD: I didn't think you were. 4 MR. McFADDEN: He has had to leave. However, Sal 5 has asked that I could testify on his behalf. I am Brett 6 McFadden on behalf of the Association of California School 7 Administrators. Sal Villasenor who's, I believe, speaker 8 number 35, I'm speaker 39, also represents the School 9 Board Association, so the two of us represent pretty much 10 the lion's share, the bulk of the school management 11 officials in the school setting.

12 And I basically want to do four things very 13 briefly tonight. One I, too, want to thank all of you. 14 We are in agreement with Mr. Roads that this is very much, 15 you know, a celebration for us. These are funds that we 16 did not have last year.

And, in fact, the allocation of these funds is a problem we didn't have last year. So this is something that we're willing to deal with.

A second, I would like to sort of bring the Board's perspective on a larger picture. The bulk of the testimony that you've heard this afternoon and this evening has been centered around CNG versus diesel, sort of the environmental aspects of it. But what I'd also like to bring to your attention is sort of the education

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

323

1 side of this and what's occurring in that realm.

2 In the last five years, we have seen one of -- I think, one of the largest school reforms or policy reform 3 efforts in any single area or political issue that we have 4 faced in the State. Nevertheless, most of the dollars 5 that have been dedicated to that have been 6 nondiscretionary dollars. They have gone to programs 7 8 specific. As a result, our school budgets, the 9 discretionary share of those -- now, while we saw an 10 increase last year, overall the discretionary share of our 11 dollars has shrunk, so that the money that we get out for 12 transportation has to come out of somewhere. And in this 13 case, it comes out of our classroom dollars.

14 So in the last five years, we've had to deal with 15 class size reduction, new teacher standards, new 16 accountability standards for students. Now, today, for 17 instance, I was at a hearing this morning talking about that one in seven of our teachers does not have the 18 19 sufficient credential or sufficient training. Later on, I was at a low performing schools seminar. And now this 20 21 afternoon we're talking about school buses.

22 So we are -- the pressures that we are facing are 23 rather drastic, and I would ask that the Board keep that 24 in mind. What the staff has put together for you is a 25 good start. It represents sort of a multi-faceted

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

approach to this issue.

1

324

2 CHAIRPERSON LLOYD: How will you change it? 3 MR. McFADDEN: The only change -- I would concur with Mr. Rhoads, and we are in support of an amendment. 4 The match is a problem for us. And that is very 5 prohibitive for many of our districts to participate in 6 that, primarily because of the factor that our 7 8 discretionary dollars are limited, and that's basically 9 the bulk of my testimony. 10 Thank you.

11 CHAIRPERSON LLOYD: Thank you very much.

12 Professor Friedman.

BOARD MEMBER HUGH FRIEDMAN: Before you leave, since you're apparently representing the administrators and the school boards --

16 MR. McFADDEN: Yeah, the management group is what 17 it's called.

BOARD MEMBER HUGH FRIEDMAN: -- at least speaking for them, do you have any interest or concern as to whether school districts have any choice in the new bus replacements, that is any choice, any alternative to natural gas?

23 MR. McFADDEN: Well, I think our position would 24 be that it would be flexible for each district.

25 BOARD MEMBER HUGH FRIEDMAN: If you could buy

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

325

1 three buses, new buses, or your districts could buy three new buses that were diesel and that reduced the 2 3 particulates to .01 or something close to that, but still 4 kicked out a little more NOx, versus two buses that are natural gas, would you like that choice? 5 6 MR. McFADDEN: Yes, I think overall --7 BOARD MEMBER HUGH FRIEDMAN: You mean districts 8 want to spend within the allocations. It wouldn't be us 9 making the expenditures, but would you want that choice?

MR. McFADDEN: To the extent that we could

10

11 maximize the number of buses at a lower cost, yes, we
12 would like that choice. And that's --

BOARD MEMBER HUGH FRIEDMAN: With that margin of potential difference.

MR. McFADDEN: I think that would overall be good. Now, I can't speak for every Board or every administrator, but to the extent that the program is flexible enough to fit with the needs of an individual district, what's good for an urban district is not necessarily sufficient for a rural district.

And you'll hear from a colleague of mine later on, Mr. Walrath, that will be representing rural districts and some of their concerns.

BOARD MEMBER HUGH FRIEDMAN: Thank you. I justwanted to know if you had any position.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

326

MR. McFADDEN: We are favorable of that, yes.
 Thank you.
 CHAIRPERSON LLOYD: Thank you very much.
 Sorry, Supervisor Roberts.
 BOARD MEMBER ROBERTS: Professor Friedman, you
 have to help me since they would have to pay \$25,000 no
 matter what kind of bus they buy, why do they get three
 versus two?

9 BOARD MEMBER HUGH FRIEDMAN: My understanding is10 the staff was indicating that a replacement bus, if it's

11 CNG, including infrastructure would be in the

12 neighborhood, I'm using rough numbers, of 130,000.

BOARD MEMBER ROBERTS: No, I understand that. But the question is the school districts themselves are going to have to pay \$25,000 per bus no matter what kind of bus they buy, so for them that's not a question. In other words they're going to pay \$25,000, there's not a difference in the cost to the school districts.

BOARD MEMBER HUGH FRIEDMAN: Well, but the cost out of this fund, it will go further and it will provide more buses.

BOARD MEMBER ROBERTS: You're saying there's potentially more buses, but for the school districts, they're still going to have to spend \$25,000 per bus. BOARD MEMBER HUGH FRIEDMAN: Yeah, but they'll

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

327

1 get more buses. I mean, it's between 300 buses and 400
2 buses.

BOARD MEMBER ROBERTS: They're going to get more4 buses if they got more money.

5 MR. McFADDEN: The match is still prohibitive,6 that's the bottom line.

BOARD MEMBER HUGH FRIEDMAN: Well, I'm ignoring the match even. I'm asking if assuming you could get more buses. Is there any doubt in your mind, Ron, that there's a difference in cost and that you would get more buses, 11 setting aside --

12 BOARD MEMBER ROBERTS: No, because I mean that's 13 been my experience with the transit district, the differential that you're quoting seems to be significantly 14 15 different from what our experience is, but I'm not 16 debating that. 17 BOARD MEMBER HUGH FRIEDMAN: I don't have 18 experience. I'm going on what the staff told me. 19 BOARD MEMBER ROBERTS: That's not what we've experienced with transit buses. 20 21 CHAIRPERSON LLOYD: Mr. McKinnon. 22 BOARD MEMBER McKINNON: I have a question of this 23 speaker and probably --24 CHAIRPERSON LLOYD: Mr. McFadden. 25 BOARD MEMBER McKINNON: If we tried to PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

328

incentivize getting rid of the oldest buses by lowering 1 the match on the oldest buses for the purchase of new 2 3 buses, not retrofitting, for the purchase of new buses, is 4 that something that would be helpful to let's say the school districts that are having the hardest time? 5 6 MR. McFADDEN: I think the considering -- I think 7 it's a step in the right direction, I mean, I think. BOARD MEMBER RIORDAN: Heads are nodding. 8 9 MR. McFADDEN: No, I think yeah, we would be very 10 supportive of something like that.

11 CHAIRPERSON LLOYD: Thank you.

12 We have Dave Randall, Doug Snyder. 13 MR. RANDALL: Good evening Dr. Lloyd and members of the Air Resources Board. You have a little from -- I'm 14 15 Dave Randall from the California Association of School 16 Business Officials. I'm also the Director of 17 Transportation for the Vista Unified School District. 18 You have a letter that came in and it will give you a lot of the detail. That's not what I want to talk 19 about tonight. I want to hit some of the points that are 20 in there, though, and maybe I can answer some of the 21 22 questions that have been raised here today. 23 First, I need to tell you that, with your staff

24 present, they really listened to us in October and we had 25 a great meeting in October after the other two meetings.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

329

And the things that we see in the staff report, we are
 very much appreciative of. And we see this as a win-win
 for everyone here.

We have \$50 million that does not come out of school district money that is specifically designated for school buses. That's great in the state of California, because we want to boost the number of children who are on yellow school buses. We also want to make them as clean and as safe as we possibly can.

CASBO takes the position that we're into fuel

10

11 neutral. Now, I'm not a technician so I'm not going to get into the other piece. But what I need to say to you 12 13 is that whoever can meet the standard, and maybe we will have a floating standard, and maybe we'll have the 14 15 building blocks that we talked about here, but we want to 16 get buses out there that do the job for everyone. Now, 17 the problem in school districts is that when you look at a school board and you say I want to buy a school bus, they 18 19 look and see which checkbook does it come out of and how 20 can we pay for this.

And everything is down to the dollar. And so what I'm going to say is that with the scarce dollars that are out there, and the fact that school funding is really a complicated issue, we're saying that we would like to see the match set aside. Now, there are issues that can

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

330

1 go with that.

2 When a school district looks to buy a bus, they 3 also look to see whether they're going to be putting money 4 in the classroom and is that money going to come out of 5 there. It would be nice if every school district in the 6 State of California had a bus replacement program. 7 Usually, what happens is when it's time to retire a bus, 8 they look and see if they can pay for it.

9 With the programs that have come on, and they are 10 great in the state for the education of our students, but 11 those programs that are class-size reduction and the other 12 ones have put a greater demand on the support services 13 including transportation. So we're doing more with the 14 same thing. And in a lot of cases, we're being asked to 15 run the bus just one more year and then we'll see if we 16 can fund it.

And I realize at your level 25,000 looks like you could get another bus out there, but on some of the smaller districts, it will mean that they will not replace that bus. They won't do it. They'll wait for something else to come along that would allow us to do that. So if there's a way to look at the match, we would greatly appreciate that.

In my letter you'll see, and I don't mean to go after your trap program, but I have an issue with it, only

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

331

1 in the fact that if the traps cost \$7,000 and we're going 2 to use low sulfur on only those buses, but we're going to 3 require the rest of the fleet to also operate under low 4 sulfur, then the cost increase for that transportation 5 director is going to add that five cents a mile to all 6 those other buses that operate.

7 If we're going to do a retrofit program, great, 8 can we do the whole fleet, and now we're back down to 9 allocations of dollars. So if we have a program, maybe 10 the issue is we need to look at the whole fleet in that 11 area. And I'm not advocating putting it all in one pot, 12 but you're asking to spend other dollars as you do that.

So if there's a reallocation of any of these, you know, I'd like to see a 50/50 split, maybe this year in that. And if we can get a retrofit program, where the traps are a little bit more available and a little bit less expensive where the fleet could go in and go do the whole thing at once, it would really be great for us.

CHAIRPERSON LLOYD: Three minutes. If you could
 wrap up.

21 MR. RANDALL: I've got one more statement, and 22 this is the last one and I thank you very much for this. 23 This is a great step in the right direction. I applaud 24 all the actions that have been taken by this Board. We 25 need not lose the momentum that we have right now. We

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

332

1 would like to see and we've talked 50. We'd like to see a
2 hundred million out there for school buses. We could do a
3 lot with the retrofit program. We could also do the other
4 things to get some buses out to the school district.
5 And I, you know, would -- we here in CASBO are
6 ready to work with you for next year's funding.

7 Thank you.

8 CHAIRPERSON LLOYD: Yes, Ms. D'Adamo.

9 BOARD MEMBER D'ADAMO: Would you say that there 10 are any trends out there in terms of the school districts 11 that have a greater problem with the ability to meet the 12 match in terms of where they fit in with the pre-77 buses 13 and air quality status of nonattainment?

MR. RANDALL: Actually in my experience, what's happened is the larger districts have had an opportunity to play in the CATS program and most of their pre-77 buses have gone. You'll find a lot of the other pre-77s in your smaller districts, which, in a roundabout answer to your question, is, yes, they would have a harder time coming up with the match because their fleets are probably smaller.

BOARD MEMBER D'ADAMO: Could staff respond to the issue of nonattainment status and whether or not there seem to be any trends with regard to the smaller rural districts and where they are, central valley, north coast, where do they fit in in terms of the attainment status?

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

333

1 MOBILE SOURCE CONTROL DIVISION CHIEF CROSS: Many 2 of them are attainment because of their rural nature, but 3 I think that we should refocus back on the issue of PM. 4 In other words, the issue here is not the ozone attainment 5 as much as it is the localized exposure of kids to PM. 6 And I don't think that's a rural urban issue.

7 EXECUTIVE OFFICER KENNY: Actually, if I might 8 try to add a little bit of assistance, the staff has put 9 together essentially a table of all the different school 10 districts throughout the state and when you look at those 11 tables of the different school districts, what we find is 12 essentially the smaller districts are essentially pretty 13 well distributed all over the place. We can find small 14 school districts in Los Angeles as well as finding small 15 school districts in places like Trinity County. 16 And so it's a little bit difficult, I guess, to

17 generalize it and say we're finding them in one particular 18 part of the state. They really do seem to be fairly 19 distributed.

20 BOARD MEMBER D'ADAMO: Okay. Now, maybe if we 21 could go back to, and I don't know if you'd be able to 22 speak to this or staff would, but the previous witness 23 raised the issue of a formula in transportation funding, a 24 J141 form. First of all, were you aware of this formula 25 and did staff consider, perhaps, consideration of that,

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

334

and if utilization of that approach would help to target 1 both the problem of need and also the pre-77 issue? 2 PLANNING AND REGULATORY DEVELOPMENT MANAGER 3 4 KEMENA: No. We weren't aware of that formula. My understanding from the testimony, though, was that formula 5 related to the percent of funding that the school district 6 got from the State. And I was not clear how that is a 7 8 reflection on ability to pay.

9 MR. RANDALL: Let me help you a little bit and a 10 couple of my colleagues following me will be able to give 11 you a little more detail on it. J141 is a reporting form 12 that's used for all school districts to report their 13 transportation costs to the State. From that form, we get 14 a certain apportionment back to cover a very small portion 15 of our transportation costs.

16 It's based on the amount of monies we need to 17 spend for it, and the monies we get back from the State. 18 There are certain things that we cannot claim on there and 19 purchasing of new school buses is one of them.

But it's really a formula that's used throughout the State to allocate the pot of monies for home to school transportation. And I'll let one of my other colleagues who's coming up behind me give you the mechanics of that form.

CHAIRPERSON LLOYD: Mr. McKinnon.

25

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

335

BOARD MEMBER McKINNON: I heard something you 1 said and I think we have someone that can kind of, with 2 practical experience, walk us through this. You were 3 mentioning some concern about retrofitting some of the 4 buses and not retrofitting others and fuel, and I guess 5 what I'm interested in is kind of your impressions on the 6 manageability of having two fuels and that kind of thing, 7 8 what you're going to do about that?

9 MR. RANDALL: It presents some significant10 problems. In some areas you share fueling facilities with

11 other cities or municipal agencies, so you'd have to have Green Diesel or clean diesel, low sulfur fuel in there for 12 all the vehicles. And I guess my concern was if I only 13 have seven buses that qualify under the replacement 14 15 program for the retrofit and then I've got to run low 16 sulfur in my other 70 buses that I'm running, I'm paying 17 an extra five cents a gallon for that, and I recognize down the line we're going to go to low sulfur, and that's 18 19 great, and I think we need to get there.

If at the same time the technology could help us bring the cost down on the traps, so that they would be more affordable to go in, then it would -- then you could go in and do a fleet in a fell swoop and get it all done as opposed to only having a limited amount of monies to go in and retrofit the buses.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

336

1 BOARD MEMBER McKINNON: Thanks. 2 CHAIRPERSON LLOYD: Yes, Mrs. Riordan. 3 BOARD MEMBER RIORDAN: Just to follow along on 4 the idea of the pre-1997 buses and how they are distributed. In looking at this table, and I'm asking the 5 staff, in looking at this table, it appears to me that 6 7 it's pretty well distributed throughout the State, kind of 8 proportionate. For instance, some of the smaller 9 districts, maybe the proportion is a little bit higher, 10 but they do have some pre-1997 buses, but they also have a 11 smaller pot of money to utilize if it's distributed, you
12 know, sort of through the process, where the larger
13 districts, again, have a lot of pre-1977 buses.

14 So that it looks to me like if you were to 15 eliminate the match on the pre -- or reduce it, either 16 eliminate it or -- pre-1977, excuse me -- eliminate it or 17 reduce it, that would basically flow to most every air pollution control district throughout the State of 18 19 California. It doesn't look like anybody's any better off, am I right in looking at that, that it's pretty wide 20 21 distribution?

EXECUTIVE DIRECTOR KENNY: No, I think, actually, you're probably fairly accurate in terms of what is happening in terms of pre-77 buses and the distribution of money. The consequence is that we then have a smaller

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

337

1 pool of overall dollars, which will result in fewer buses 2 statewide.

3 BOARD MEMBER RIORDAN: That's true. But it's 4 hard to figure out a way to help the truly poorer school 5 districts and then allow for some other distribution 6 formula for those districts who can probably truly think 7 that to pay \$25,000 for a new school bus is a real 8 bargain, I mean, a true bargain. So I don't know how to 9 distribute that. But at least everybody seems to have at 10 least those pre-1977 buses. MR. RANDALL: We appreciate your dilemma and we appreciate the fact that there's some money for school buses.

14 Thank you very much.

15 CHAIRPERSON LLOYD: Thank you. Doug Snyder, Kirk 16 Hunter.

17 MR. SNYDER: Thank you, Dr. Lloyd and members of 18 the Board. My name is Doug Snyder and I'm here this 19 evening representing the California Association of School 20 Transportation Officials, CASTO. CASTO is a school 21 transportation industry organization representing over 22 2,500 members and representing over 80 school districts in 23 the State of California.

24 We'd like to take this opportunity to thank25 Governor Davis for his allocation of 50 million for a much

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

338

needed school bus replacement program in the State. And
 we'd also like to take this opportunity to thank the Air
 Resources Board and their very competent staff for being
 very receptive and considering all concerns and
 recommendations from the school transportation industry.

6 We have a couple areas of concern that we'd like 7 to address today. First of all, let me just offer our 8 support for the fuel neutrality portion of the staff's 9 recommendations and the proposal before you tonight and 10 that is because it meets the needs of a greater number of 11 school districts in the State. Not everybody has the 12 ability to develop the infrastructure for CNG. So the 13 alternative does meet more school district's needs and 14 does reduce pollution.

15 I'd like to follow-up a little bit on the school 16 district match portion. I've enclosed in my handouts to 17 you tonight a graph, it's actually the second graph, and it's entitled 1998/99 Transportation Statistics For 18 19 California School Districts. If you look at the right 20 side of the graph, there is expenses and apportionment for school districts listed by counties. And as you can see 21 that all counties are underfunded for their school 22 transportation program, all school districts underfunded 23 for their school transportation program. 24

25

And, in fact, the statewide average of

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

339

encroachment into the General Fund, monies and programs 1 that are competing for classroom dollars is about 55 2 percent on a statewide average. And, in fact, that 3 4 encroachment is disproportionate for rural districts as compared to urban districts. So I'd just like to bring 5 that to your attention. And it is hard for school 6 districts to get that match because they are in direct 7 8 competition for the programs that the gentlemen from the 9 school administrators talked about, all the important 10 things that we're doing for our children in the classroom. 11 So that is a problem for some school districts.

12 The other thing that I would like to address 13 tonight is the population based allocation of the school buses. We believe that the oldest bus should be replaced 14 15 first. We need to get the oldest pre-77 buses off the 16 road first. They do not meet today's safety standards for 17 compartmentalization, rollover protection, all those 18 important things that we trust our school buses to have. 19 The oldest buses need to get replaced first. And, generally, in rural districts, those children ride 20 further and are on the bus longer than in urban districts. 21 22 And they're affected more. So we would like to see -that's the only fair way we see to allocate the money, 23 oldest bus first. 24

25 CHAIRPERSON LLOYD: Three minutes.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

340

MR. SNYDER: Lastly, I would like to encourage 1 the Board to make a recommendation to the Governor through 2 a budget change proposal for \$100 million to continue this 3 4 program, because as you can see in the other graph that I've supplied to you, there are approximately 30 children 5 killed every year during school transportation hours in 6 passenger vehicles on their way to and from school, and 7 about 20 children killed every year as pedestrians on 8 9 their way to and from school.

And as one gentleman mentioned, only 16 percent

10

11 of children utilize school buses. Buy increasing that 12 percentage, we will protect more childrens' lives than we 13 do now.

14 Thank you.

15 CHAIRPERSON LLOYD: Thank you.

16 Ms. D'Adamo.

17 BOARD MEMBER D'ADAMO: Yes. I'll ask you, and if the other witnesses that are coming up could be mindful of 18 19 this as well, I'm interested in learning more about the J141 formula and how that would fit in, say, on a sliding 20 scale. Is it geared, is the whole purpose to determine --21 MR. SNYDER: The J141 is not necessarily a 22 formula. The J141 is a reporting mechanism for school 23 24 districts to report, like the last gentlemen said, their 25 expenses and miles and those kind of things to the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

341

Department of Education, School Finance Division. Then
 because of a formula that was established in 1983, I
 believe, that allocation for their transportation expenses
 is based on that base year, which is 17 years old, and
 that's why school districts are so underfunded.

6 It is somewhat equitable across the board in the 7 way it's disbursed, but you could come up with a logical 8 way to buy down the match if that's what you're looking 9 for, from that process, by taking miles and costs or 10 amount of students in working with staff to come up with 11 some formula that would work and be equitable to all in 12 that regard.

BOARD MEMBER D'ADAMO: But it's based upon need and not ability to pay.

MR. SNYDER: It's based upon miles and students only, not anything else.

17 CHAIRPERSON LLOYD: Supervisor.

18 Thank you.

Kirk Hunter, Steven Stetson, Ranson Roser, Victor
 Ogrey.

21 MR. HUNTER: Good evening, Dr. Lloyd and members 22 of the Board. Thank you very much. My name is Kirk 23 Hunter. I am the Director of the Southwest Transportation 24 Agency and I handle ten school districts in rural Fresno 25 county, busing about 6,000 students a day. I have two

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

342

1 issues to address. But before I go there, I just wanted 2 to let this Board know and Dr. Lloyd that the staff has 3 been wonderful, they're a class act. I've had a chance to 4 work with them with this program for a couple of months 5 and they're a bunch of great folks. And I just want to 6 tell them thanks.

7 The match, to give you a practical example of how 8 the match works for me at Southwest Transportation. My 9 budget this year is a million seven, my reimbursement from 10 the State is one million dollars. I take \$700,000 out of 11 the general fund of ten school districts this year for 12 transportation services, add another 25,000 or however 13 many buses that we would get, that's just directly out of 14 the classroom.

We have no pre-77 buses at this time, but do have a couple of pre-86's, so it's just direct money out of the classroom. And that's the reason you're going to hear "we want it to go away," because it's just not there.

19 The other area I'd like to address is the 20 allocation. I, too, am a very large advocate of pre-77 21 buses first and only, and do not go past pre-77 until such 22 time as the money or the buses run out and we need to move 23 on forward. Staff did an excellent job trying to reach 24 that goal of pre-77, but stopped just short by still 25 allowing pre-87.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

343

If we're going to really be concerned with the 1 health and safety of the children of this State, we have 2 to go all the way and not just halfway. We can't just 3 concern ourselves with air quality, we also have to 4 concern ourselves with the environment inside the bus. 5 And by replacing pre-77 buses, it's a complete safety 6 7 picture. They get the inside of the bus as well as the outside of the bus. 8

9 And I would also like to see the Board cap the 10 number of buses that somebody could get in this program to 11 ten. That way it would be fair and it would be spread a 12 lot wider. Just as a hypothetical situation, let's assume 13 that a school district would ask for 100 buses. Absent a 14 cap, if their name comes up, they could get 100 buses. 15 And that's just not appropriate nor fair when you're 16 trying to reach 24,000 buses or 979 school districts in 17 the State of California.

18 Thanks.

19 CHAIRPERSON LLOYD: Thank you very much.

20 Questions or comments?

21 Thank you.

22 Steven Stetson.

23 MR. STETSON: I'm Steven Stetson. I'm here to 24 comment on the proceedings today in three different areas. 25 First, in a legal sense, secondly in a structural form and

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

344

1 then just kind of some of the priorities that have come
2 up.

There's been a lot of talk of specifics, but it seems that California being in violation of federal clean air standards is held to use best available current technology in upgrading transportation systems to reach standards set by the federal Clean Air Act.

8 If you do that, then you probably won't go to 9 Green Diesel. We're currently in violation of those 10 standards. So if you just look at it in that sense, 11 there's really no choice, you have to go with --

12 CHAIRPERSON LLOYD: I can recognize the priority 13 here was for toxic air contaminant, diesel particulate. MR. STETSON: Well, NOx is too, though, I think. 14 15 I could be wrong. 16 CHAIRPERSON LLOYD: You could be wrong. You 17 definitely are wrong. 18 MR. STETSON: Okay. Well, let's go over to 19 structural items. I noticed that \$15 million will purchase roughly 150 buses with Green Diesel. The other 20 technology, compressed gas, would purchase roughly 115. 21 That's a difference of about 30 buses statewide out of 22 16,000 That's a very small difference, a very small 23 24 difference. So I think a lot was made of that. And in 25 lieu of the 16,000 bus need, it's just not that important.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

345

Also, the priorities, matching funds, that's 1 going to be impossible for a lot of districts. That's 2 already been talked about. One thing about the NOx 3 4 standards, you will be protecting the majority of the population of children, but when it comes to the elderly 5 and asthmatics, you cite a level of .25 parts per million 6 7 damaging asthmatics and susceptible individuals in the 8 population. So I think that should be considered also 9 think you should use the best available current technology 10 that is out there whether the specifics are argued ad

11 infinitum or not, is one thing, but if you just go 12 straight with that, the choice is already made.

13 CHAIRPERSON LLOYD: I think, as we've heard today 14 there's a difference of opinion there. The best available 15 lowest numbers may be on natural gas or diesel is one, but 16 for NOx or particulates, you can see one is better or 17 equivalent to the other, so it's not a straight forward 18 choice.

MR. STETSON: The figures are in dispute, so if you go with what you do have --

21 CHAIRPERSON LLOYD: Thank you. I would like --22 by the way, I really do take exception to this handout 23 here and the direct comment here about Air Board 24 executives talking about special deals cut and 25 commissions. I think this is completely unworthy of even

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

346

1 putting in writing, so --2 MR. STETSON: I should retract that. I wrote 3 this last night kind of late and --4 CHAIRPERSON LLOYD: You shouldn't have handed it 5 out. Don't retract it. 6 MR. STETSON: May I apologize? 7 CHAIRPERSON LLOYD: You can see how hard staff 8 has worked on this issue. We're all committed to this. 9 We're here to get the facts. We're here also to 10 distribute the \$50 million that the Governor devoted to

11	the school districts. You hear how grateful they are to
12	this. We take our responsibility very very seriously.
13	We're here to protect public health. We are trying to
14	weigh all the evidence.
15	And for you to cavalierly write one page here of
16	ill-informed and inflammatory stuff is not acceptable.
17	Thank you.
18	Next, Ranson Roser, Victory Ogrey and Michael
19	Hulsizer.
20	MR. ROSER: You'll have to excuse me at this
21	point, I know myself only as number 41.
22	(Laughter.)
23	BOARD MEMBER DeSAULNIER: Welcome to Area 51.
24	(Laughter.)
25	CHAIRPERSON LLOYD: Do you realize he's actually

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

347

1 from Reno?

BOARD MEMBER DeSAULNIER: How appropriate.
(Laughter.)
MR. ROSER: I thank the Board for its time. And
my name is Ranson Roser, number 41, from NRG Technologies.
I'm an engineer with a small research and development
company. My history has been with air quality districts
and in low-emission vehicle technologies.
And my comments, that will be very brief, are in

10 line with the previous comments that have talked about a

11 favorable position towards natural gas in the Board 12 proposal in order to not only use the extremely low 13 emissions that have been achieved by natural gas in the 14 forms of the standards, but also natural gas in terms of 15 enabling technology for other technologies which are 16 coming up on the horizon.

17 And so with that, my company is actively dealing with the development of hydrogen enriched natural gas, 18 19 which is basically hydrogen as a supplementation to natural gas. Some might consider it as an additive. And 20 21 I'll refer to that as HCNG rather than just CNG. And That achieve ultra efficient, clean combustion with that type 22 of fuel mixture and spark ignition engines. 23 The 24 development and commercialization of this technology has 25 been funded by the Department of Energy for the past three

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

348

years. And in addition to our work at our offices, our
 data has been substantiated by work at another laboratory.
 We currently are working on vehicle
 demonstrations with Pinnacle West, British Columbia
 Hydroelectric, Bechtel Nevada and the US Department of
 Transportation.

7 The vehicle platforms that we're working on in 8 these development projects include light-duty vehicles, 9 medium-duty and transit bus applications with the first 10 applications in 30 to 40 foot transit buses.

We have recently demonstrated in our laboratories, the attainment of less than .2 grams per 12 13 horse power hour NOx in a compression ignition engine with 14 these fuel mixtures, simulating conditions to match the 15 torque requirements of the diesel or natural gas base 16 engine that it will replace in the heavy-duty transit bus 17 application.

18 We expect similar results to be obtained for a 19 project that we will be initiating in Davis, California. Currently, the hydrogen required for the engine fuel is 20 supplied in addition to CNG. Air products and chemicals 21 22 are supplying this hydrogen for both our Las Vegas and Davis, California projects. 23

NRG is currently in the development phase of a 24 25 concept that's patent pending that will create the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

349

1 required hydrogen from the on-board, natural gas in the 2 vehicles. These reformer concepts are brought up with, of 3 course, in the context of fuel cells. It turns out that 4 when you're dealing with internal combustion engines they can run on a wide variety of fuels, these reformer 5 concepts are not so far-fetched, they are much more 6 7 tangible.

8 And so in that sense with that technology, of 9 course, we would then be talking about using just the 10 natural gas infrastructure to achieve these low-NOx

11

emissions, and not specifically talking about a hydrogen infrastructure.

I urge the Committee to support a stronger slide towards the CNG based portion of the proposal. And we hope to, of course, show maybe in the next Board meeting the achievement of maybe less than .1 grams per horse power hour NOx emissions of an internal combustion in a heavy-duty transit bus application.

19 Thank you very much for your time.

20 CHAIRPERSON LLOYD: Thank you very much. I would 21 ask the staff, obviously, this round our technology is not 22 quite there, but I think to be able to reduce NOx here by 23 a factor of ten, we'll just ask staff to monitor and work 24 with you on that to see the development and get that bus 25 working in Las Vegas and that would be good.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

350

MR. ROSER: Thank you. Clearly for this context, 1 it's merely to support the CNG based portion of this 2 proposal and I look forward to speaking with the staff. 3 4 CHAIRPERSON LLOYD: Thank you. 5 Victor Ogrey, Michael Hulsizer, and Veronica Dale Muchmore. 6 7 MR. OGREY: Mr. Chairman, I'm Victor Ogrey. I 8 live in Redding, California, which is in Shasta County. 9 In keeping with your previous admonition earlier this 10 afternoon, I think just about everything I was going to

11 say has already been said, so I'm sure you'll be pleased 12 to hear that. I would just like to make two points.

13 One I have personally observed in our small 14 transit district in Redding, which has about 13 routes, 15 that at least three of the drivers each day lose their 16 voices about mid-day. And since the transit terminal is 17 enclosed pretty much by a couple of buildings, it seems to me that most of the cause of their losing the voices, is 18 19 the five to 12 minutes they spend each hour in the terminal breathing the exhaust fumes, because the transit 20 21 district won't shut their engines off.

In addition to which, I happen to live in a community where they're now proposing to put a second major truck stop across the street from the one existing truck stop we have in Shasta county, which is right next

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

351

1 to the I-5 freeway, which has 8,750 trucks passing daily.
2 And this creates a lot of exhaust fumes, especially since
3 it's -- both of these truck stops will be 260 feet from
4 our 500 student elementary school, believe it or not.

5 So I'm very concerned about diesel emissions. 6 And I would hope that -- I'm very pleased to see what is 7 happening here, that you have the \$50 million and it will 8 be spent. I'm hopeful that this money will be spent so 9 that we can prove in the period of a year or a recently 10 short period of time that the studies of the alternative 11 fuels are possible and get some hard statistics which will 12 prove which one is best, but moreover it will show this 13 whole series of hearings here have shown how important it 14 is that we do update our school bus fleet in the State of 15 California. And I applaud you for your efforts. 16 Thank you. 17 CHAIRPERSON LLOYD: Thank you very much.

18 Michael Hulsizer.

MR. HULSIZER: Thank you, Mr. Chairman. Michael Hulsizer with Kern County Schools. I want to begin, as some other speakers have, by thanking you all. First of all, we want to thank the Governor and staff and the Board for supporting this program.

24 Very early tonight you heard a speaker from25 Riverside say that schools are in a crisis, and we are.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

352

1 And it's going to get worse, because as another speaker 2 pointed out, the need for transportation for schools in 3 the State is going to grow. As we provide after-school 4 programs, enrichment programs for students, we provide --5 we extend the school day for students, bus transportation 6 is going to be increasingly important. And so we need 7 this program.

8 And the concerns that I'm about to express 9 shouldn't upstage the fact that we generally appreciate 10 and support this program. I'm going to try to stick to 11 two points and provide you with some analysis that I don't 12 think you've quite heard. We are concerned about the 13 proposal of staff because we believe that it 14 disproportionately and unfairly will impact rural and 15 small school districts. And we'd ask you to take a look 16 at two of the proposal provisions from that perspective.

17 The first is the match. We agree with all the school people who've spoken that are telling you to 18 19 eliminate the match. But I want to argue with you just for a second or argue to you that the match 20 disproportionately hurts rural and valley schools. And 21 22 the reason for that is that in rural small school districts we have greater encroachment. And the reason 23 for that is that we bus a much higher percentage of our 24 25 students.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

353

In the valley, we bus roughly twice the number of 1 the state average. The state average is about 16 percent. 2 In Kern county we bus 32 percent of the students. If you 3 4 go up into the northern part of the State, the most rural isolated counties, you're looking at 50 and 60 percent of 5 the students being bused. What that translates to is on a 6 per student basis for the school district, encroachment in 7 the urban school districts of this State is about \$100 a 8 9 student districtwide, because they bus only some of them 10 less than ten percent of their students, most of them less

11 than 15.

12 In our county, our encroachment costs are \$130 13 per student countywide, that's multiplied by 143,000 14 students. In the most rural parts of the state, it's up 15 to about \$200 a student is the encroachment. Now, because 16 of that disproportionate or inequitable encroachment, to 17 have a flat \$25,000 per bus match unfairly discriminates 18 against the smallest most rural districts.

We'd ask you to eliminate the match. If you
can't do that, at least have the match be on a per student
basis so that the smallest most rural districts are at
least equitably treated.

The second point that we'd make is that on the distribution formula, you also, I think, unfairly hurt rural parts of the state, small districts, first of all,

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

354

1 because you bus a higher percentage -- first of all, we
2 have a higher percentage of pre-1977 buses in the most
3 rural isolated parts of the state.

In the San Joaquin Valley, where I'm at, 25 percent of the pre-1977 buses in the state are in the valley. We only have about eight percent of the population. That same ratio is about the same in the northern part of the State. If you distribute the money on the basis of population, the San Joaquin valley will get about \$3.7 million. If you distribute it and targeted 11 it pre-1977 buses, you'd provide about \$10 million to that
12 area.

The point is, is that if you really mean what you're saying and that you want to equitably reduce the amount of pre-77, the most polluting buses in this state, you will equitably prioritize pre-1977 buses and send the money out equally around the state where those buses most exist.

Mr. Walrath and the small school districts, I
think, will expand on this, but we just, from the sense of
fairness ask you to look at this rural issue.

22 Thank you.

23 CHAIRPERSON LLOYD: Thank you.

24 Ms. D'Adamo.

25 BOARD MEMBER D'ADAMO: I'm really troubled by

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

355

1 this. At first when I looked at this, population did seem
2 to be the appropriate way to go, but has the staff
3 considered a number of factors that could be accounted
4 for, pre-77 buses, the encroachment issue, the point I was
5 trying to raise earlier, need, is there a way that -- and
6 population, obviously, maybe even population weighted more
7 heavily than some of the other factors.

8 Could staff speak to that.

9 EXECUTIVE DIRECTOR KENNY: Well, we actually -- I 10 don't think we looked at the encroachment issue. We did 11 look at essentially at a pre-77 issue. And what we ended 12 up determining there was that it actually seemed to be a 13 reward to those who had not replaced their buses earlier. 14 And it seemed to be a penalty to those who actually had 15 actually, you know, taken money out of their budgets and 16 replaced the pre-77 buses.

17 And so one of the concerns we had there, from a population basis or a population pre-77 basis, was that if 18 19 we went with the latter, it did seem to essentially not take into account that simple fact, that some school 20 districts had recognized that there was a pre-77 bus in 21 22 their fleet, or several pre-77 buses and that they had made budgetary augmentations in order to try to move those 23 buses out. 24

And the worry we had was we did not want to

25

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

356

disincentive school districts from moving those buses out
 with their own funds, and so that was why we went with a
 straight population approach.

BOARD MEMBER D'ADAMO: What about some of the other factors, though and also, if you could, speak to that very well may be the case, but then the testimony by the gentlemen from Mendocino led me to the conclusion that they're just not going to be able to -- that match, they're not going to be able to participate in the program to at all. 11 So in that situation -- there may be a varying degree of pre-77s. There may be certain districts that 12 13 could afford it and then others that it's not due to any bad faith on their part, they just don't have the dollars. 14 15 EXECUTIVE DIRECTOR KENNY: You're absolutely 16 correct. The difficulty we ran into there was that we 17 were looking at essentially how much money we had and how far we could go in terms of that money. And with the 18 19 available money that we had and using a \$25,000 match, we could essentially purchase roughly 400 school buses with 20 21 the \$40 million.

22 And that really broke down essentially to a little bit more than 200 as CNG and a little less than 200 23 24 as diesel. And if we basically eliminate the match, then 25 what we do is we take that 400 number and we basically cut

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

357

1 that number by roughly 25 percent, and so suddenly we're down to 300 school buses. And we saw essentially fewer 2 buses being able to be distributed around the state. 3

4 And with the large population of school buses in the state, we were trying to at least get the biggest bang 5 for the buck that we could. And I mean it is, obviously, 6 a difficult issue. 7

The one thing that we were actually playing with 8 9 a few moments ago was a suggestion by Mr. McKinnon that we 10 look at maybe a different kind of a match associated with

11 pre-77 buses as a way of trying to equalize this in some 12 fashion, with the idea also being that the pre-77 buses 13 seem to be located in some of the poorer districts, or at 14 least that was the assumption, and so maybe we change the 15 match there a little bit.

Now, we don't know what the exact consequence of that would be, but it will mean that we will have fewer buses. It doesn't mean that we would lose, you know, the same number of buses as if we eliminated the match completely.

BOARD MEMBER D'ADAMO: Yeah. I think we should discuss it further. And maybe in future years, if we could -- because I don't think this would be appropriate at this point, but maybe to have a sliding scale, maybe there are some school districts that could afford more

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

358

than the 25,000 and so a sliding scale based upon ability
 to pay. Perhaps some school districts could afford 20, 15
 all the way up to, you know, 30 to 40.

4 EXECUTIVE DIRECTOR KENNY: The difficulty we had 5 with that is that we were, I guess, very uncomfortable 6 trying to figure out what the ability to pay is in 7 essentially, 1,100 school districts throughout the state. 8 We thought that would be almost an impossible task. And 9 especially not knowing, you know, the entire school 10 district system and how the money is basically funded and 11 what the augmentations are like.

12 The other thing we did also consider is that 13 there are a number of air districts around the state, 14 which we do anticipate probably providing at least some 15 level of match funding themselves and maybe covering the 16 match fund obligation so that, again, we could extend the 17 money as far as possible and get as many buses as 18 possible.

19 CHAIRPERSON LLOYD: Did you want to respond?
20 MR. HULSIZER: Well, I just needed to respond to
21 this argument that you didn't want to reward areas of the
22 state that hadn't replaced their buses. I could accept
23 that argument if the burden, if you will, were equally
24 distributed. But the fact is, it's not so much ability to
25 pay as it is the fact that in the ruralmost -- the small

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

359

parts of the state, we are busing exponentially more students and that is the reason we haven't -- if there's one reason why we haven't been able to replace buses at the rate of the more urban concentrated parts of the State, they're just not busing as many students, and so it's not as big a burden on their budget.

7 The encroachment issue, the per student cost of 8 this program is what we're asking you to look at. I'm 9 not -- I think that there's a point to make about 10 low-wealth versus high-wealth districts. But the real 11 issue is the encroachment, the hit on the district's 12 general fund budget. And if it's \$200 or \$130 per student 13 in the district, that's got to be recognized versus \$97 or 14 \$100 per student in the district, the ability to pay is 15 impacted for small rural.

CHAIRPERSON LLOYD: Ms. D'Adamo, then Mr.
 McKinnon.

BOARD MEMBER D'ADAMO: The encroachment issue, is
that a term of art, is that information that all school
districts have to have.

21 MR. HULSIZER: Absolutely, and it goes back to 22 the J141 but it's not as simple as just looking at the 23 percentage of revenue versus expenditure. It's taking a 24 look at the difference between the revenue and the 25 expenditure and then multiplying that by the total number

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

360

of students in the district, that's the real issue. There are many counties where the encroachment percentage is right around 50 percent. But if it's 50 percent and you've got a third of the students of the other area, your encroachment per student is going to be much greater and that's the number that you need to look at.

8 BOARD MEMBER D'ADAMO: And you don't just have 9 that information per county, it is broken down by school 10 district? 11 MR. HULSIZER: It is per county. The data is 12 there. It's just a matter of doing the calculation. It 13 would not be difficult to do.

14 BOARD MEMBER RIORDAN: It's by county or by 15 school district?

MR. HULSIZER: Both. You could do it by local education agency. You could do it by county. There's ways of configuring it, but what it really comes down to is by school district, and you can do that. It's not difficult.

21 CHAIRPERSON LLOYD: Mr. McKinnon.

BOARD MEMBER McKINNON: The reporting, what is it the J141, is there data collected that would tell us something like the number of student miles traveled per day or something? Is there data collected that could give

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

361

1 us that.

2 MR. HULSIZER: Yeah, I'd refer you to our 3 transportation officials on that. There is and that's 4 another issue as well.

5 BOARD MEMBER McKINNON: Well, one of my concerns 6 is that I think there's really something we need to do 7 here. And I guess what I would float is dropping it to 8 like ten percent and 10,000 for pre-77 buses, but I have a 9 sense we need another condition. I mean, I'm not really 10 interested in replacing the school buses that move the 11 football team, occasionally, at an urban high school, 12 right.

But if you're talking about the buses that run around Trinity county or even in the Los Angeles area, there's some very poor school districts here that are a hundred percent pre-77. And I think that's who we ought to be helping. But I'm not sure how we distinguish school districts that easily can make not buying buses okay.

19 I mean, for instance, if you're an urban 20 district, you have two buses at the high school you move 21 the football team with every Friday afternoon. It's easy 22 not to place a priority of buying more buses or new buses. 23 And I'm not sure how we sort that out. And that may be 24 the insurmountable problem for us here.

25 If you've got -- do you have any ideas?

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

362

MR. HULSIZER: I think we would suggest that you 1 start with pre-1997 and equitably distribute the money 2 there. If you really want to impact the issue of the most 3 polluting buses in the state that's where you go. Don't 4 look at student population, because you're going to 5 unfairly and inequitably disproportionately send money to 6 7 parts of the state that have the lowest per capita usage 8 of buses, of school buses.

9 BOARD MEMBER McKINNON: What if we looked at 10 student miles traveled divided by buses, right? 11 MR. HULSIZER: I think the number of miles is an 12 issue. I think that's complicating it, but I certainly 13 cannot deny that's not an issue, because it's a huge 14 issue. In a county with 8,000 square miles, we travel per 15 student a heck of a lot more miles with each student than 16 you're going to find in an urban county, so we would 17 welcome that.

18 CHAIRPERSON LLOYD: Supervisor DeSaulnier. 19 BOARD MEMBER DeSAULNIER: Not knowing, but I'm 20 just looking at this list that the California Association 21 of School Transportation Officials gave us, which breaks 22 down the percentage of riders by enrollment. And all of 23 the ten largest urban counties have very small 24 percentages, which answers your question. But on the 25 other hand, my involvement with some of those districts is

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

363

1 it's because they have other priorities. They demand from 2 their constituents -- let me just finish my thought --3 whereas we still -- it's not that we don't want to get 4 those ridership numbers up, we've got safer routes to 5 school programs, I know, in the Bay Area and I think other 6 urbanized areas, because you're worried about the security 7 of kids and congestion.

8 So I think, at least for now not understanding 9 that, I'm more comfortable at least with beginning with 10 Matt's suggestion, because -- and maybe you can answer 11 this, I don't -- is it largely demand, that a rural
12 county's parents need those school buses?

MR. HULSIZER: You're talking about school districts that serve exponentially larger numbers of square miles. And so, you know, in my county, I've got school districts that have got to bus 50 percent of their population. They just have to, because 50 percent their kids live more than five miles away from the school.

19 In an urban county that's just not the case. I 20 don't think we should criticize urban school districts for 21 not busing more kids. The reality is they're busing the 22 kids they have to bus. And they have a lower percentage 23 than we do in rural counties.

24 BOARD MEMBER DeSAULNIER: I'm worried about 25 getting on this comparison, not knowing what school

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

364

districts base that on and what criteria, knowing that especially poorer school districts all have funding problems, in Los Angeles, San Diego, the Bay Area. And not knowing that, I'm anxious about getting into this whole debate rather than just dealing with the pre-77, as Ms. Riordan said, which seems to spread across the State more evenly.

8 CHAIRPERSON LLOYD: Dr. Burke and then Supervisor9 Roberts.

BOARD MEMBER BURKE: I'll pass.

10

CHAIRPERSON LLOYD: Supervisor Roberts.

11

12 BOARD MEMBER ROBERTS: You know, something is 13 bothering me here. And it's we're getting away from what 14 it is that I thought was the principal focus and that's cleaning the air. And it seems like anybody that 15 16 represents a school district just wants buses period. And 17 I've got a feeling it doesn't make any difference what kind of buses we sold them or helped them to buy or what 18 19 the standards are, they just want buses.

And you know what, every one of the school districts wants that. I'm kind of uncomfortable with the direction this is going, because I think in a superficial way there may be some legitimacy to it, but I'm looking at school districts in urban areas that have very much the same problems.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

365

I think Matt's suggestion to be thinking of maybe 1 a different line, I think there should be some match. But 2 I would feel very supportive of maybe reducing that 3 number. But to all of a sudden say, hey, we're going to 4 shift this whole program and heavily weight it in favor of 5 rural areas, I think is -- I would just -- I think maybe 6 what we ought to be doing is looking at the impacts, the 7 8 air quality impacts, and how are we going to clean up the 9 air and how are we going to make for a healthy environment 10 for more kids.

11 And I think we're, you know, without exception 12 everybody that's come up here representing a school 13 district has almost completely focused on we've just got 14 to get more buses.

I do have a question for our staff, in all due respect, is it a requirement that if we help buy a bus, they take a bus off the road?

18 EXECUTIVE DIRECTOR KENNY: Yes, it is.
19 BOARD MEMBER ROBERTS: That's set. So we know
20 you're going to demo a bus for everyone that --

21 EXECUTIVE DIRECTOR KENNY: What we had said is 22 basically, if they buy a bus, they have to essentially 23 demo the bus or they have to replace an older dirtier bus, 24 so that in fact, if they -- and what I mean is essentially 25 since we have a limited pool of buses here and we have a

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

366

1 lot of dirty buses throughout the state, if, in fact, we 2 replace a dirty bus, there may be a dirtier bus somewhere 3 in the State, we would rather essentially get rid of that 4 dirtier bus by moving the dirty bus.

5 BOARD MEMBER ROBERTS: So there could be a couple 6 of basically trade downs?

7 EXECUTIVE DIRECTOR KENNY: Yes, but in the end it8 disappears.

9 BOARD MEMBER ROBERTS: But somewhere at the end 10 of that, there is going to be a bus that we're going to 11 drive into a crushing machine somewhere?

12 EXECUTIVE DIRECTOR KENNY: Correct. There's a 13 crushing machine somewhere.

BOARD MEMBER HUGH FRIEDMAN: So we have dirt, dirty and dirtier.

BOARD MEMBER ROBERTS: Well, that's what -- I mean if you get the dirtiest -- ultimately if you -- I just want to make sure there is a bus coming off the road of for every one that we end up helping to buy.

20 BOARD MEMBER BURKE: But isn't it the policy of 21 some school districts to sell the buses that they're going 22 to get rid of to Third World Countries.

23 EXECUTIVE DIRECTOR KENNY: It may be.
24 BOARD MEMBER BURKE: Isn't it an income stream
25 for them?

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

367

EXECUTIVE DIRECTOR KENNY: It may be, but in this 1 particular situation there will be plenty of 2 opportunities, I think, in the State of California where 3 4 the dirtier buses exist and they can then move a dirty bus, because they now have a newer clean bus. 5 BOARD MEMBER RIORDAN: But I don't think we want 6 7 to send some of these buses off to some other area. 8 BOARD MEMBER BURKE: We're just moving the 9 problem. But what I'm saying is that some school 10 districts use that as an income stream.

BOARD MEMBER RIORDAN: Well, that isn't a good practice.

BOARD MEMBER BURKE: So you know then that's a consideration also. I passed to speak before because, you know, this is a highly emotional issue for me. I was born on a farm, so nobody needs to tell me how far you've got to go to ride a school bus.

But I also drive through the city of Los Angeles, every district, every place, all the time, more than my wife wants me to, but I go anyway. And there are different -- it's like comparing apples and oranges. And the reason you transport kids in an urban environment is a totally different reason than you transfer them in a rural environment.

25 And quite frankly, I'm glad I was born when I was

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

368

because I wouldn't want to travel on a school bus in any environment today. But I think our charge here is about the air. And if you look at it like that, I think the staff's recommendation, the population distribution of this money -- now, I have no problem with the 1977 lowering of the match, even though, you know, it goes against the staff's theory of, you know, having those school districts step up to the plate initially.

9 And, you know, Matt, I knew that you were an 10 athlete, but the days of having a bus sit around and 11 taking the team on Fridays doesn't exist anymore. Well, 12 maybe where you're at, but let me --

BOARD MEMBER McKINNON: Sacramento schools, you've got be kidding, but --

15 BOARD MEMBER BURKE: Okay, but I guarantee you if 16 you go down to the Los Angeles school district, it's just 17 crazy down there.

18 MR. HULSIZER: I'm sorry, I just need to say one 19 thing. The organization I work for has no pre-1977 buses. 20 If you distribute the money on the basis of 1977 buses 21 equitably, my organization will get not a dime.

If you want to clean the air, you'll distribute the money on the basis of 1977 buses pre-77 equitably around the State.

25 CHAIRPERSON LLOYD: Ms. D'Adamo.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

369

BOARD MEMBER D'ADAMO: Well, I think that there are just so many different ways of doing this, and we just don't have all the information before us right now. Maybe if there's a way to do what Mr. McKinnon suggested on the match issue.

6 But I would propose that for next year we look at 7 this formula closely, because even though the encroachment 8 issue may weigh it more heavily than what it should be for 9 rural districts, I think the population factoring solely 10 weighs it disproportionately in favor of urban areas, 11 particularly if there are all these great distances to be 12 traveled. And it's not just about air quality, it's about 13 proximity to the buses, PM and exposure standing outside 14 the bus and riding the bus.

15 CHAIRPERSON LLOYD: I think I agree, it is a very 16 complicated issue. I think what's suggested in the 17 interest of time here, we've got -- it's now 7:10 and we've still got another eight witnesses, maybe what we 18 19 should do is get the witnesses to focus on some of the issues which maybe have not been addressed so then we can 20 have this discussion, maybe take a break -- but we now 21 have Veronica Dale Muchmore and I guess you're going to 22 23 speak for two people.

24 MS. MUCHMORE: Yes, I am. I'm going to speak for 25 Charlie Ott first. He's director of transportation for

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

370

Yuba City Unified School District, which is one of your
 more rural districts. And I represent East Side Union
 High School District in the City of San Jose, and we have
 over 25,000 ADA in our school district. So we're one of
 your bigger city ones.

Let me read Charlie's letter first because I
think he will put some of my own thoughts in here.
It says, " Dear Air Resources Board
Members. I'd like to apologize for not

10 being able to speak in front of you

11 today. I intended to do so, but due to 12 the agenda, I had other obligations this 13 afternoon.

"I am writing this letter to ask you to 14 15 please consider remaining neutral on the 16 types of fuel allowed in the lower 17 emission school bus program. Many small 18 to medium school districts within the 19 State of California do not have the option of natural gas. If we do, the 20 21 infrastructure is so extensive that we could not even consider it." 22 And a good point is you need to understand how 23 24 much infrastructure really does cost to support CNG if you 25 do not have it in your area or if you are not already

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

371

equipped at your site to handle CNG. I have a background 1 in setting up infrastructure here locally. 2 3 "By you remaining neutral, we have a 4 choice in how we can do our part in lowering emissions. Our jobs as school 5 district transportation directors is 6 7 education. Sometimes we get caught up 8 in the politics, but that is not what we 9 are here for. We ask students to keep 10 an open mind so that their learning

11 ability can increase. We expect them to 12 see things clearly and make objective 13 decisions.

"For the sake of all children in the 14 15 public school system, as well as the 16 small school districts that service 17 them, please keep an open mind and be 18 objective. Allow us, the people whom 19 you have entrusted to run your school transportation units, to have a choice 20 21 when it comes to alternative fuels. "Thank you, Charles Ott." 22 23 CHAIRPERSON LLOYD: Thank you. MS. MUCHMORE: He put that very well. There were 24

25 $\,$ some other issues that I noticed that have come up. A

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

372

little background, I've been driving school buses since I
 was 18. I have over 25 years in this industry from the
 ground up. I didn't start out in college to be a school
 bus driver, but somehow I ended up doing it.

5 I've worked with CNG. I've helped at a previous 6 facility I worked at, we worked on different agencies to 7 test alternative types of fuels including pure NOx, which 8 is a water emulsion fuel based with diesel. The test 9 results were quite interesting. We ran methanol. 10 Fortunately, we were not part of the test program 11 for electric school buses. I would never recommend anyone 12 go that way again. But the differences between where I 13 was from and where I'm at now, even though they're both 14 city school districts, are that previously someone else 15 started the CNG program, and I expanded on it. And we had 16 the support mechanism from both the local air district and 17 from the school board to do that.

18 Where I'm at now, I don't have that support. I 19 don't have the ability to replace my pre-77s and I have 20 quite a few of them. If you're talking about what happens 21 and why school districts are worried about replacing 22 pre-77's -- and quite a few of us in the audience took 23 offense to Supervisor Roberts' comments about why we're 24 here.

25 We're here and we're in this industry because

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

373

1 this is where we want to be. We chose to be here and this 2 is our passion. This is our lives. These people in this 3 industry don't make big bucks, and it's a struggle for us 4 as directors everyday to keep these people happy and to 5 keep the equipment running and to keep our shops updated. 6 It's not easy. So, of course, we want more, you know, 7 bang for the buck as you have put it.

8 CHAIRPERSON LLOYD: You used pretty well all of 9 your time, unless you've got some salient points here. 10 MS. MUCHMORE: There were several things that 11 were made. Just to make a statement, I am a taxpayer. I 12 heard people make remarks about taxpayers. I'm a 13 taxpayer. I heard other remarks about cancer. I'm a 14 cancer survivor. So, you know what, please keep fuel 15 neutral. Allow us, the people that we've entrusted, to do 16 our jobs and to do them right.

17 Thank you.

18 CHAIRPERSON LLOYD: Thank you very much.

19 Dr. Burke.

20 BOARD MEMBER BURKE: Two things. One, did staff 21 consider just taking this money that they've divided up 22 and giving it to local air districts and letting them take 23 all this testimony? Did they ever think about that? 24 (Laughter.)

25 BOARD MEMBER BURKE: You know, and let the school

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

374

1 districts then make their own decision on whether they want, you know, CNG or diesel or retrofit? 2 3 EXECUTIVE DIRECTOR KENNY: We are now, right? 4 Actually, we did not. 5 (Laughter.) 6 BOARD MEMBER McKINNON: So moved. 7 (Laughter.) BOARD MEMBER BURKE: Second point, that you know 8 9 some people should not -- I assume everybody knows that 10 T-bone Pickens has formed a company which will provide

11 four school districts and other institutional groups CNG refueling facilities at no cost based on the entrance into 12 13 a supply contract. So when you talk about the support of refueling --14 15 CHAIRPERSON LLOYD: Not quite at no cost. He 16 gets it back in the end. 17 BOARD MEMBER BURKE: Well, he's not a 18 philanthropist. 19 (Laughter.) 20 CHAIRPERSON LLOYD: Anyway, we need to move on. 21 Mark Fairbanks, David Walrath and Ralph Knight.

22 MR. FAIRBANKS: Good evening, Chairman Lloyd, and 23 Board Members. My name is Mark Fairbanks. I'm the 24 Director of Transportation up at Calaveras Unified School 25 District.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

375

1 I am one of those rural communities that transport approximately 55 percent of our student 2 population. And we do this over a 600-square mile area. 3 4 We're basically two-thirds of the county as one district. We're actually one district that would be hurt by the 5 thought of population based funding because we don't have 6 the population in the area. In fact, our school district 7 has 4,000 students. And, like I said, we transport well 8 9 over half and we cover approximately 800,000 miles based 10 on what we did last year, based on trips and other things 11 that we do throughout the year.

Now, by not replacing any buses or getting any funding for that, of course, you know, we are traveling more miles than you would see some buses in an urban area. So, in a sense, we are polluting the atmosphere more, running the older buses that we are running. So we would definitely want you to consider the stance of being population based as far as basing the funding.

As far as waiting, you know, the funds need to be allocated now, and I understand that. And I heard that we need to focus on clean air, which is why we're here. But as was already mentioned, the 77 and pre-77 buses are the most polluting buses that are out on the road.

24 So, you know, of course, being transportation, we 25 look at the safety first, because that's most important to

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

376

1 us. But if you can get the safest vehicle and the 2 cleanest vehicle to replace those that are polluting the 3 most, of course, that would be the more appropriate to do 4 so. We would encourage you to look at replacing all the 5 pre-77 buses and going through that.

6 By the way, I appreciate what your staff has done 7 and all the hard work they've put in. Going into the 8 thought of being fuel neutral, I appreciate the different 9 things that have been brought up as far as natural gas, 10 the Green Diesel and propane. Now, I note you were 11 talking a little bit about propane. My background in this 12 industry, of course, started as a mechanic. Using propane 13 powered buses in our area wouldn't work because of the 14 great ability or the power issues that we have to deal 15 with in the mountains.

Fueling becomes the issue when it talks about natural gas, so really only the viable solution for us is a Green Diesel. So, anyhow, we would ask that the Board here consider the population-based area and also that they look to replace all the pre-77 buses.

21 CHAIRPERSON LLOYD: Thank you.

David Walrath, Ralph Knight, Claudia Sherrill.
MR. WALRATH: Good evening. My name is Dave
Walrath. I'm the Executive Director of the Small School
Districts Association. It is a pleasure to be here. It's

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

377

1 a pleasure to be talking about \$40 million.

2 You have multiple goals. I'm not sure if anybody could have kept track of the number of agendas that have 3 4 been presented before you today. I'm presenting one more. 5 I want to cover two points of comment on the staff recommendations. But before hitting those, I want 6 to compliment staff. I think you've done an excellent job 7 8 like many other people, \$40 million for cleaner air, for 9 safer buses, better programs for students, how could 10 anybody complain.

11 So my comments are not in the form of complaint, they're in the form of hopeful comments and considerations 12 13 in the allocation mechanism. There have been comments on 14 the ability of small school districts to make a match.

15 In my written testimony, I suggest you do a per 16 ADA match requirement. A district of 500 students paying 17 potentially \$10 per student, which would be \$5,000. In a 18 district of a thousand students, \$10 would be 10,000, but 19 no more than 50 percent of the replacement cost of the school bus is to be replaced. 20

21 The 50 percent figure comes from the last time we 22 did school bus replacement, \$35 million appropriation trailer bill to the budget had a 50/50 match requirement. 23 24 Most small districts were unable to participate in that 25 program. However, he 50 percent maximum amount is a

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

378

1 precedent you may want to consider.

2 Ten dollars per ADA. How do I come to this figure? Approximately 400 school buses to be replaced, a 3 4 \$25,000 match per bus, approximately \$10 million. Ten dollars per ADA, if you have a million ADA in the state 5 and school districts participating in this program, 6 7 approximately a sixth of this ADA of the state, then 8 that's approximately \$10 million again.

9 Instead of having a disproportionately high cost 10 to a small district replacing one bus, be it a 1977 or a

1986, instead it would be proportionable to the ability to 11 pay. And the ability to pay depends upon your revenue. 12 13 And our revenue comes as a per ADA revenue source in the 14 revenue line. Fewer kids, the less money you get. More 15 kids, more money you get. Per ADA is what we'd recommend 16 you take a look at as far as a match mechanism.

17 On the distribution on the allocation, 18 representing school districts, yes we'd very much like to 19 have solely pre-1977, but that's just one of the agendas. You have multiple. And one is clean air, the purpose of 20 why the money was given to you. It would have been given 21 22 to the Department of Education if it was just going to be 23 going to -- for the purpose of replacing school buses. 24 Multiple agendas. Population covers part of the issue on clean air. Pre-77 covers part. We request you

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

25

379

look at instead of using simply pre-77 or simply 1 population, some sort of a blend of the two. We would 2 suggest using proportion pre-1987, looking at the fact 3 4 that pre-87 buses, 1984 buses as polluting as -- are generally as polluting as a 1997 bus, will better 5 represent the needs of the San Joaquin Valley in their 6 number of buses that are pre-77 or pre-87. 7

8 That brings them closer to the pre-77 amount they 9 would have, more than they would have under population. 10 Other areas would have a little bit less than they would

11 have under population, but more than what we would have 12 received under the pre-77.

13 We think in 1987, you will give balance as you 14 try to look at how to deal with these issues. With that, 15 thank you, and I'll be pleased to answer any questions you 16 might have.

17 CHAIRPERSON LLOYD: Thank you very much.

18 Questions or comments?

19 Thank you very much.

20 MR. WALRATH: Thank you.

21 CHAIRPERSON LLOYD: Ralph Knight, Claudia

22 Sherrill and lastly Phil Hendrix.

MS. Sherrill: Good evening, I'm Ralph Knight.(Laughter.)

25 CHAIRPERSON LLOYD: Yes. Did we lose Ralph?

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

380

MS. Sherrill: We lost Ralph. He waited all day and had to leave. My name is Claudia Sherrill, Director of Transportation for the Elk Grove School District right here in the Sacramento area.

5 I think you've probably left the best for last, 6 meaning school districts to respond to you last. I want 7 to thank you for this opportunity. School dollars are 8 hard to come by in any fashion. When they're dedicated 9 for the yellow school bus, we take part.

10

I would ask that you give me the respect of being

11 able to address you and give you the information that I 12 had planned on earlier in the day. It does repeat much of 13 what you've heard, but it may have just a little different 14 twist.

As a school district representative, I want to thank and show our gratitude for the \$50 million Governor Davis has made available to improve the safety and health of the school students utilizing school buses in the State of California, their health, by means of improving the fuel source and their safety by originally attaching this money to the replacement and demise of the pre-77 buses.

I emphasize original, because with the expansion of the 87 buses, 1987 buses, we are missing a critical opportunity. We in the school bus industry preach safety, we teach safety and then when we fail to recognize the

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

381

priority and the impact that this money could do by
 replacing first the 1977 buses not by population but by
 all 1977 buses.

4 Throughout the State you've heard a lot of 5 dialogue here. I'm not going to repeat it. I'm not here 6 as a school district that will receive any of those. We 7 have none. I believe in my industry we need to replace 8 the pre-77 buses throughout this State, that's critical. 9 Secondly, if compressed natural gas is an 10 available source, that should be the fuel of priority. If 11 it is not available, then the smaller school districts 12 should not be held hostage, if you will, and not be able 13 to participate. If the cleaner fuel is available for them 14 through diesel, then that should be what they are allowed 15 to replace.

16 The proposed \$10 million for diesel traps, I 17 would propose that we only postpone that. The school districts and the school industry has been a target of 18 19 demonstration programs, much of which has been successful. But as a manager of a large school district, when I don't 20 put a bus on the road to transport kids every day, 21 22 someone, beginning with the Superintendent of my school 23 board, wants to know why.

And it's very difficult to say, you know what, we stepped up to bat and we're participating in a clean air

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

382

1 program. But the tests weren't complete and we're 2 suffering, our equipment isn't running day-to-day. So I 3 would simply ask that the traps be postponed until we have 4 all the information needed.

5 Lastly, continued funding of this allocation of 6 dollars not only in next year's budget but for in budgeted 7 years in the future, school district transportation needs 8 your help. We need to be partners with you. I hope that 9 nothing you've heard here today is a negative from the 10 school districts in particular. We appreciate what you're 11 doing. We appreciate the very difficult decision that you 12 have.

13We are interested not just in getting a bus in14our fleet, but we're interested in safe transportation of15all children. I applaud you. I applaud the staff. Thank16you. I feel like we've come to know each other and you17have a very tough decision to make.18CHAIRPERSON LLOYD: Thank you and thank you for

19 bringing the bus outside there as well.

20 MS. Sherrill: You're welcome. Isn't it pretty?
21 CHAIRPERSON LLOYD: It sure is, yes.
22 The last name is Phil Hendrix.
23 Not here.
24 No one else.
25 Okay. Now, I guess we can open it up for

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

383

1 discussion.

2 We now -- I guess the one thing I would like to 3 ask here is, Mr. Kenny, having heard all this, if you'd 4 like to make any summary comments here before the Board 5 discusses the item.

6 EXECUTIVE DIRECTOR KENNY: I think I would like 7 to make a few comments. I think, basically, probably the 8 comment that's most appropriate is you've now had a chance 9 to share the staff's pain.

10 (Laughter.)

EXECUTIVE DIRECTOR KENNY: As you can see, there are a multitude of issues that we have been trying to wrestle with in terms of the proposal that we brought to you. And quite fundamentally and quite simply the biggest difficulty that we have had has been that there are roughly 1,100 school districts in this State.

17 And what we are proposing is something that can 18 only provide 400 new school buses. And so we cannot even 19 provide a single new school bus for every school district 20 in the State.

In addition to that, what we have been trying to do is wrestle or compare or balance that with the air quality issues that are associated with this particular proposal. From a purely staff perspective, given our druthers, given our purely air quality desires, we would

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

384

have proposed to you \$50 million for traps and no school
 buses because we thought that was the best air quality
 thing to do.

At the same time, we recognize that this was a bigger issue than simply going in that direction. And what we tried to do is recognize that there was an issue here of providing new school buses to the school districts around the State. We tried to recognize that what the Governor was looking at was essentially replacing older school buses throughout the state, even on a more limited 11 basis because of the money we had available.

12 We took that into account when we looked at 13 essentially the different types Of technologies. And what 14 we were doing there is looking at whether or not any 15 particular technology should be advantaged solely over all 16 the rest. And our conclusion was that it should not, 17 because what would happen is that if we did that, we would lose air quality benefits, we would reduce the number of 18 buses, and we would not be able to provide the greatest 19 20 benefit to the greatest number of people.

21 So what we did in the end is take essentially all 22 the issues that you've heard today and we reached a 23 conclusion that we thought balanced all those issues in a 24 way that was most appropriate. We provided CNG buses in a 25 substantial volume, so that, in fact, they would be

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

385

1 available in big portions of the State. We provided 2 diesel buses because we do think it was important to have 3 them available in the State and we also recognized that 4 what International did was bring a bus in that is cleaner 5 than the four gram standards to which they are currently 6 obligated to produce buses.

7 And then lastly what we did is we made sure that,
8 in fact, we continued to have the traps out there,
9 because, in fact, what was most important about all of
10 this is the PM. NOx is very important, but in line with

11 what the Board basically directed us to do, just in 12 September, we are looking at trying to figure out 13 strategies to reduce PM, because in the bottom line 14 assessment what we have to do is figure out how to reduce 15 the PM, because that gives us the biggest benefit in terms 16 of cancer reduction.

And so in the end, the proposal we brought to you was one that was as balanced as we could kind of make it, and at the same time try to address as many of the constituent issues as could be addressed.

21 CHAIRPERSON LLOYD: Thank you very much. The 22 suggestion I'd have for the Board is that we look at the 23 areas here, for example the fuel splits, how do we fit 24 propane into this also with all the traps and the 25 proportion right there. And then the issue we heard from

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

386

1 the school districts, the match and then the allocation of 2 buses.

So maybe first what we'll address is are we
comfortable with where we are in terms of the splits
between the diesel and the alt fuels, which is
predominantly natural gas?
Supervisor Roberts.
BOARD MEMBER ROBERTS: Okay. I'll start it. And

9 let's go back to the comments that I made earlier where it 10 seemed to me that from an air quality standpoint, that to

11 have the very smallest amount that's going to the retrofit, the larger amount that's going to the Green 12 13 Diesel and then those two adding up to half of the pot, the other half of the pot going to the CNG, That like the 14 15 split 50/50, but I would --16 CHAIRPERSON LLOYD: That's fine. That was my 17 first issue there. So you like that part of it? 18 BOARD MEMBER ROBERTS: Yeah, but I don't like 19 the --20 CHAIRPERSON LLOYD: Yeah, I understand. 21 BOARD MEMBER ROBERTS: Okay. I thought you were 22 taking it a step further. 23 CHAIRPERSON LLOYD: Well, I can, but I'd like to 24 settle that issue first. 25 BOARD MEMBER ROBERTS: I like the 50/50, for no

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

387

1 other reason than it's simple and clean.

CHAIRPERSON LLOYD: After today, I understand.
So do we have anybody who might change that?
That's good. Now we get into the diesel part
then, the trap issue vis-a-vis the new Green Diesel.

6 BOARD MEMBER ROBERTS: For me, the retrofit part 7 of this, I think, ought to be larger than the clean 8 diesel. I think there's a number of issues that have been 9 raised, not the least of which, I mean, we are talking 10 about something that there is no track record in terms of 11 the clean diesel, where at least with the retrofit there
12 is some evidence in terms of the workability over time.

13 I mean if I had my way, I'd say 20 million on the retrofit and five million on the clean diesel, which --14 15 and maybe prioritize the clean diesel for those more rural 16 areas with pre-1977 buses, so you'd in a sense, create a 17 smaller pot, but focus it on what the most need is for that particular technology. And maybe that would balance 18 19 out some of the concerns of the population base, leave the population base on the other side, but maybe priorities. 20

21 But I would make it a much smaller pot than the 22 \$15 million, which ought to be significant for the fact 23 that there may only be one company producing these things. 24 CHAIRPERSON LLOYD: Discussion.

25 BOARD MEMBER ROBERTS: So for whatever it's

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

388

1 worth, that would be my recommendation.

2 CHAIRPERSON LLOYD: Yes, Professor Friedman. 3 BOARD MEMBER HUGH FRIEDMAN: I respect that view, 4 Ron. I wrestled with this too. But at the end of the day, and it is now at the end of a very long day for all 5 of us, I personally have concluded that the staff wrestled 6 with this for a lot longer than we have. They've heard 7 8 all of the views and probably maybe others and many more 9 of it, much more accumulation of it than we heard today, 10 and I've gained great respect and more respect and

appreciation for the staff and the job they did in cobbling this compromise together from the varying agendas and points of view, all of which deserve careful consideration.

And it's a delicate balancing act. And we're on a high wire. And my concern is if we begin to try and fine tune it collectively and negotiate here in this forum at this time and in this place and begin to tinker to the smallest, other considerations will begin to kick in and I'm not sure we'll end up with any better product.

And so reluctantly I, for one, think that though there's some arguments that could be made, certainly, good arguments for changing the allocation within the diesel path, there's also the issue of retrofits. Are they available, are they not, I mean how fast, when? I mean

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

389

people and districts are saying it takes awhile, and
 things are out -- you know, there are other
 considerations.

And then we get into all that sort of thing in terms of timing. So I guess what I'm doing is saying I'd just as soon not go there where you feel we ought to go.

7 BOARD MEMBER RIORDAN: Mr. Chairman, I'd like to 8 agree with Professor Friedman. I also want to provide the 9 flexibility to the school districts to choose what is 10 smartest for them. And it seems to me that what the staff 11 has proposed in the split is indeed that flexibility. It 12 may be, if we're fortunate enough, to have another 13 opportunity we may want to adjust this split. But for 14 this year, I'd really like to see as much flexibility 15 given to our school districts as possible and I believe 16 that is within the split.

17 CHAIRPERSON LLOYD: Supervisor DeSaulnier.
18 BOARD MEMBER DeSAULNIER: Maybe in the idea of
19 particular tinkering -- although I can't believe I've been
20 for almost -- we've been talking about this all afternoon
21 and evening and I haven't heard -- I thought Dr. Burke was
22 going to start talking about how I walked to school every
23 day through the snow ten miles.

24 (Laughter.)

25 BOARD MEMBER DeSAULNIER: And as Bill Cosby said,

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

390

1 uphill both ways.

2 (Laughter.)

BOARD MEMBER DeSAULNIER: You're almost there.
BOARD MEMBER HUGH FRIEDMAN: We haven't heard
about the 10 cent allowance.

BOARD MEMBER DeSAULNIER: He's changed that over7 the course of his lifetime.

8 When I started out, you know, a little anxious 9 over not emphasizing enough on the alt fuels route, but 10 I'm okay with the split. I think maybe a variation in 11 still keeping with flexibility that Ron is suggesting 12 maybe we could do, in the idea of tinkering, but I just 13 throw this out for conversation, if we did the 10 million 14 for retrofit but the other 15 we gave them the option, 15 they can either do the green buses or they can do any 16 proportion of that as retrofit?

17 It's just a suggestion, so you're not mandating 18 they have to do 20, but you give them the flexibility. It 19 sounds like they're going to go for the buses anyway, but, 20 Ron, if you're right, which I'm inclined to think you are, 21 when they start looking at it, they'll probably see some 22 value in doing the retrofit as opposed to the buses.

Just a suggestion. You have that look on your face, Mr. Chairman, that you wished you hadn't called on me.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

391

1 (Laughter.)
2 BOARD MEMBER DeSAULNIER: You told me I had
3 something coming from the previous -4 CHAIRPERSON LLOYD: You have many more coming.
5 Maybe what would the staff -- what would that do? What
6 are the implications of basically Supervisor DeSaulnier's
7 suggestion?

8 EXECUTIVE DIRECTOR KENNY: I think it's a timing 9 issue. I mean, I think what we'd have to do is 10 essentially if there was an option there on the \$15 million, the question would be at what point would you, sort of, pull the option, because the difficulty is going to be is that, again, we only have roughly 190 buses in that particular category. And, again, we're looking at over 20,000 school buses in the state.

16 So I think the likely outcome is that all 190 17 buses are going to be claimed, and so I don't think 18 there's going to be any money left for retrofits.

19 So the question becomes one really of timing. If 20 you say that they can basically jump into the retrofit pot 21 immediately, then someone may, in which case you reduce 22 the number of buses. But if you say they have to wait X 23 number of weeks or months, I think there won't be any 24 money for retrofits. I think the money will all go to 25 school buses.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

392

BOARD MEMBER DeSAULNIER: Then if you give it --1 2 BOARD MEMBER BURKE: But that's an assumption not necessarily based on fact, but in theory. So, if, in 3 fact, you did that and your theory was right, there 4 wouldn't be any change in what you did at all, but at 5 least he got the option to give flexibility. She got her 6 school board flexibility and those people who are looking 7 8 for more retrofit thought at least they had a shot even 9 though they didn't get it.

10 EXECUTIVE DIRECTOR KENNY: Yeah, I'm not

11 disagreeing. I'm just saying that I think it would be 12 important to identify the timing, essentially, either it's 13 like on day one or basically it's on day 30, at which 14 point, you know, the people have the option to go into the 15 retrofits.

BOARD MEMBER DeSAULNIER: In the keeping of the spirit how about day 15? I don't know what the right time is but the idea of giving some motivation for people to look at retrofit but a very limited period of time, I'd leave that up to staff.

21 CHAIRPERSON LLOYD: All right. Mr. McKinnon.
22 BOARD MEMBER McKINNON: Yeah. I guess I started
23 out at use all 50 million for retrofit and fix 24,000
24 buses, I mean --

25 BOARD MEMBER DeSAULNIER: That's more than

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

393

1 tinkering.

2 (Laughter.)

BOARD MEMBER MCKINNON: I mean, that's where I started. And actually what I've arrived at is kind of living with the proposal as it is. It has merits in all the directions. While I listened to people feeling that we weren't doing enough for natural gas, half the money goes to natural gas, 25 million. We were offending this industry by giving them \$25 million. Hello.

10 (Laughter.)

BOARD MEMBER McKINNON: And I think moving forward with new diesel buses that are cleaner is a good thing to do and making sure that there's money there to do that.

15 And yeah, there's a debate over 3.0 and 2.5. I 16 think we're going to end up with competition for 17 International. I mean, who is going to avoid the 18 opportunity to sell buses and engines? I mean, it's going 19 to happen. And I think it helps with cleaning up diesel. 20 So that's a very long winded way to say I have no 21 objection to the mix. Probably the only place I would tinker has to do with the school match stuff. 22

23 CHAIRPERSON LLOYD: Are there any other issues on24 the trap before we go on to the match.

25 BOARD MEMBER CALHOUN: Try to get some traps

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

394

included in this whole package. I hate to see all of this
 completely for new buses.

BOARD MEMBER BURKE: It's at 10 million so far.
CHAIRPERSON LLOYD: Dr. Burke.

5 BOARD MEMBER BURKE: I'm not going to tell about 6 my walk to school in the snow. And let me tell when it 7 was really cold and it was over my head.

8 BOARD MEMBER DeSAULNIER: Please, because I used9 up my hankey about two hours ago.

10 (Laughter.)

11 BOARD MEMBER BURKE: And it was uphill both ways. 12 I agree. The three of you, and Matt started me 13 out going that way when he said hey man, I'm not into any of this stuff, let's retrofit all these buses and get it 14 15 all done now. So he started me out going that way. Now, 16 he's turned out and he's behind me now. 17 So thanks. 18 (Laughter.) 19 BOARD MEMBER DeSAULNIER: Where do you prefer 20 him? 21 (Laughter.) 22 BOARD MEMBER BURKE: I want him in front of me, thank you very much. 23 24 (Laughter.) 25 BOARD MEMBER BURKE: But I don't see anything

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

395

1 wrong with your proposal, because it's basically the staff 2 proposal. And if what Mike says is true, which I 3 absolutely think it probably is unequivocally true, by 4 tomorrow afternoon 12:00 o'clock, but at least we've given 5 the opportunity to have retrofit sneak in a few extra 6 dollars.

Now, I don't in my heart of hearts, I don't believe it's going to happen. But it also gives her her flexibility for the school districts to make the decision whether they want new buses or retrofitted buses. It 11 gives retrofit a shot at more money. And I want to thank 12 Mike very much and the rest of the staff from keeping this 13 from the air quality districts, because we don't stay this 14 late at work.

15 CHAIRPERSON LLOYD: I think staff obviously have 16 some consultation about that.

17 Professor Friedman.

BOARD MEMBER HUGH FRIEDMAN: I'm not sure of the implications. I don't know if staff is still considering them, but I'm all for flexibility, although I thought I heard the Supervisor say that she liked the proposal because it was flexible.

23 BOARD MEMBER RIORDAN: I do.

24 BOARD MEMBER HUGH FRIEDMAN: And she wasn't 25 seeking more flexibility.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

396

BOARD MEMBER RIORDAN: Right, I do. If I
 miscommunicated that --

BOARD MEMBER HUGH FRIEDMAN: I would like to know more about how that works? I mean, at what point do school districts have to, with their boards and their consultants and their transportation committees make this election, and how do they do that meaningfully, and does that mean that pre-77 buses can -- can they all be retrofitted efficiently. I'm not clear that that's the case.

11 And so is that a viable option? And how long do we give for that? You know, we can chew this thing to 12 13 death. And if it's going to make a marked improvement, I'm all for it, but I would hope to get a little more 14 guidance for how that works. 15 16 CHAIRPERSON LLOYD: It seems to me that it's so 17 complicated that we should refer it to the local boards of 18 supervisors to sort it out. 19 (Laughter.) 20 BOARD MEMBER HUGH FRIEDMAN: Actually, I wish we 21 had done what Mr. Burke mentioned --22 BOARD MEMBER DeSAULNIER: Thank you. You've just 23 made four good friends. 24 BOARD MEMBER HUGH FRIEDMAN: -- and just sent it 25 all to the regional boards. PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 397 1 BOARD MEMBER BURKE: Made all the sense in the 2 world. 3 CHAIRPERSON LLOYD: Seriously, I think Professor 4 Friedman, maybe staff has a comment, reflecting on the suggestion. 5 6 EXECUTIVE DIRECTOR KENNY: Actually, we have been

trying to figure out how to do it. The difficulty we have 7 is that we have different administering sources for the 8 9 different funds. And essentially what is happening is the 10 new bus funds are being fundamentally administered by the

11 CEC. That retrofit funds are being administered by us, 12 and so we have to figure out a mechanism by which once the 13 new bus funds are out there, within some specified period 14 of time, the school districts make their determination and 15 either go a new bus route or they go a retrofit route.

16 If they then go a retrofit route, then there 17 would be some kind of a transfer of the money out of the 18 new bus funds into the retrofit fund. And I mean that's 19 where we are having our difficulties.

20 BOARD MEMBER DeSAULNIER: Mr. Chairman, I didn't 21 mean to make things more complicated. And, Ron, if you 22 want to start. My suggestion would be if there's a way 23 to do it cleanly, I'd leave that up to the Executive 24 Director, how's's that?

25 EXECUTIVE DIRECTOR KENNY: No thanks.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

398

1 BOARD MEMBER RIORDAN: I want to make it very 2 clear for the record, I am supporting what the staff has 3 proposed, because I think there is built into that 4 flexibility, and yet you keep sort of the pot sort of 5 separate and then adjust hopefully with another round of 6 funding next year, that is my position. 7 CHAIRPERSON LLOYD: Supervisor Roberts.

BOARD MEMBER ROBERTS: Yeah, let me try one last
9 effort here. And I'm going to take you back to air
10 quality. You know, while I certainly didn't mean to -- in

my observation of the school districts' motivations to 11 want to have more buses, I understand that. You know, 12 13 there's nothing wrong with that. But I thought that our 14 charge here was maybe from a little different perspective. 15 If I understand this right, a retrofit is 16 somewhere between \$4,000 to \$6,000. Let me for the moment 17 assume it's \$6,000. Assume it's \$4,000 roughly, or 18 \$5,000. We'll take the midpoint.

19 If you took \$15 million, it comes down to buying 20 150 buses or retrofitting 3,000 buses, and if you're 21 looking at it from an air quality standpoint, I've got to 22 tell you, we've got this upside down. Now, you may feel 23 comfortable with that, but buying 150 buses from an air 24 quality standpoint is not going to be measurable in the 25 State, okay.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

399

1 So I'm just telling you what's making me very 2 uncomfortable, and whether you want to tinker or don't 3 tinker, I think you're off the beaten path and I think 4 you're having only a marginal impact on air quality issues 5 that you could greatly impact by looking at this somewhat 6 differently.

7 And I will not say a thing and I'll be prepared 8 to vote on whatever you want to put forward.

9 CHAIRPERSON LLOYD: Professor Friedman.
10 BOARD MEMBER HUGH FRIEDMAN: I'd like to talk

11 about one other issue, before I get too tired to talk 12 about anything, and that is the issue of the match and the 13 funding. I mean if there's any more conversation on the 14 allocation, I didn't want to preclude it, but I don't want 15 people to feel that they have to keep doing it if they 16 don't want to chew it. Is there any more conversation?

17 CHAIRPERSON LLOYD: I think there is, obviously.
18 BOARD MEMBER HUGH FRIEDMAN: I mean, are we
19 trying to develop some kind of consensus or are we going
20 to have motions to amend or approve or accept.

21 CHAIRPERSON LLOYD: I just want to respond to
22 Supervisor Roberts. I certainly wouldn't advocate going
23 all retrofits. I think the balance we have is important.
24 BOARD MEMBER BURKE: Instead of taking 10 million
25 he said 15 million for retrofit, and then leave 10 million

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

400

for new --1 2 BOARD MEMBER ROBERTS: Mr. Chairman, I was told that I wasn't close enough to my mike and there were 3 4 people that couldn't hear. Could I repeat what I said. CHAIRPERSON LLOYD: I think I understand. 5 6 BOARD MEMBER ROBERTS: What I said is if you -- I wanted to change the balance. But I'm looking at 15 7 million, you can take whatever part of the 25 million you 8 9 want, but I'm looking at simply the impacts from an air 10 quality standpoint. And I said if you took 15 million and

11 to simplify this you say you were buying buses at a 12 100,000 apiece, you're going to buy 150 buses.

13 If you did retrofits at 5,000 apiece, you're 14 going to retrofit 3,000 buses, okay. The difference 15 between buying 150 buses and retrofitting 3,000 buses from 16 an air quality standpoint leads me to believe that we, 17 because of all of the testimony that we've gone through 18 and the tiredness that we're all feeling, that we're 19 losing the reason why I think we are here.

It isn't to help school districts supplement their fleets. And as you can see, we're not -- we're going to help very few school districts. You'd be lucky, this is like a lottery, if you get a bus, you're going to be very -- everybody is imagining they are going to get some bus or buses, these rural districts, they're going to

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

401

be lucky if they get a half a bus at the rate at which
 you're spending the money.

And the impact on the air quality in California is going to be immeasurable, you are not going to measure it, forget it. So I'm saying why don't we do it in a different split. And not that we ignore -- we'll have some money for those new buses, but I think that on the diesel side, we should weigh in heavily on the retrofits. BOARD MEMBER HUGH FRIEDMAN: And what about, I know it's not air pollution, but what about safety? By 11 doing that and urging retrofits, we may be improving the 12 air but we're locking in the buses that are noncompliant 13 with federal safety standards since 1977 or before.

And, as I said earlier, I wish there were a perfect solution. And maybe there's a better balance, but I don't feel that I've got the -- I really don't feel I've got the wisdom to pluck it out of the air at 8:00 o'clock after a long day.

19 CHAIRPERSON LLOYD: Why don't we take the simple 20 approach of taking that, splitting that 25 million into 12 21 and a half apiece. It doesn't get to where you're going, 22 it's a step in that direction, what does staff think are 23 the implications of that?

24 EXECUTIVE DIRECTOR KENNY: We would actually have 25 more money then for the retrofits and roughly we were

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

402

1 looking at \$10 million as being sufficient to provide for 2 roughly 1,500 retrofits. And so the additional two and a 3 half million dollars, we would increase that by 4 essentially about 375 retrofits. The number of school 5 buses would be decreased on the diesel side by essentially 6 25.

7 CHAIRPERSON LLOYD: Supervisor DeSaulnier.
8 BOARD MEMBER DeSAULNIER: I understand where
9 Ron's going and I appreciate his passion and the
10 investment. So if 1250 is agreeable to everybody, I'd be

11 supportive of that.

12 CHAIRPERSON LLOYD: That said, this time of 13 night, that seems a good number.

14 Now, then I think the question came up on the 15 match. We need to talk about that and the allocation of 16 buses.

17 BOARD MEMBER HUGH FRIEDMAN: What would be the 18 implications of changing from 25 percent to something 19 less, 20 percent, you know, we always buy things at 10 20 percent down and 20 percent down.

21 EXECUTIVE DIRECTOR KENNY: We were looking at 22 essentially roughly every five percent would make a 23 difference of 20 buses. And so right now we're at a 25 24 percent match which totals 100 buses. If it drops to a 20 25 percent match, we would be down to -- essentially we would

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

403

1 lose 20 buses, so we'd have only an additional 80 buses in 2 terms of the match procurement.

3 If we dropped to 15 percent, then what we'd do is 4 we'd lose 40 buses and down the line. If we dropped to 10 5 percent, we'd lose 60 buses.

6 BOARD MEMBER HUGH FRIEDMAN: And About every ten
7 percent is about -- or every five percent is about \$5,000
8 to \$7,000?

9 EXECUTIVE DIRECTOR KENNY: No, I was looking at10 basically essentially from a more aggregate standpoint,

11 which was that the 25 percent gave us roughly an

12 additional 100 buses where we are right now.

13 BOARD MEMBER HUGH FRIEDMAN: Well, but if an average bus is \$100,000 to \$130,000 and we're asking them 14 15 to come up -- am I wrong? 16 EXECUTIVE DIRECTOR KENNY: No, you're correct. 17 BOARD MEMBER HUGH FRIEDMAN: They come up with five percent of that, then that's 5,000 to 7,000. 18 19 EXECUTIVE DIRECTOR KENNY: That's correct. 20 BOARD MEMBER HUGH FRIEDMAN: And so ten percent would be 10,000 to 13,000. 21 22 EXECUTIVE DIRECTOR KENNY: That's correct with the cap being at 25. 23 24 BOARD MEMBER HUGH FRIEDMAN: And to the extent 25 that they're going to -- the have the opportunity to sell

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

404

1 those buses or trade them for something, if there's 2 somewhere in this State a more polluting bus, is that a 3 way to raise some funds toward the match for the better 4 bus?

5 EXECUTIVE DIRECTOR KENNY: Well, the difficulty 6 there would be if they sold the bus and we were going to 7 use it toward the match, we'd have to figure out some way 8 of tracking that in terms of actually counting and I think 9 that would be very difficult to figure out, especially as 10 we're talking about rolling buses down before we 11 ultimately get to one that's crushed.

BOARD MEMBER HUGH FRIEDMAN: We do make sure that we trace it, so that for every bus that is purchased under this program, there is a colder more-emitting bus that is out of action permanently?

16 EXECUTIVE DIRECTOR KENNY: Yeah, we do want to 17 see that.

BOARD MEMBER HUGH FRIEDMAN: I'm just wondering how we might accommodate the concern, especially in some of the poorer districts.

21 CHAIRPERSON LLOYD: I think I would echo that. 22 And clearly from what we heard earlier, I think it's the 23 Governor's concern about providing those buses, and, at 24 least, giving those districts the opportunity to 25 participate in the program and they shouldn't be doing it

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

405

1 for lack of funds. Can we have a hardship provision or something in there? 2 3 EXECUTIVE DIRECTOR KENNY: We can. In terms of determining what a hardship would be. 4 5 BOARD MEMBER BURKE: Mr. Chairman, I'm confused. Now if we go with \$12,500,000 for new bus purchase. 6 7 BOARD MEMBER HUGH FRIEDMAN: Plus 25 for the CNG. 8 BOARD MEMBER BURKE: Well, no, but if we go for 9 12,500 for the new Green Diesel buses and we move the 10 co-pay, for lack of a better term, to 10,000, how many

11 buses are we talking about now?

12 EXECUTIVE DIRECTOR KENNY: That translated 13 roughly to 60 buses. BOARD MEMBER BURKE: I mean, we're not doing 14 15 anything here. I mean, you know, I've stayed all day. I 16 could have stayed at work and maybe bought 60 buses. 17 (Laughter.) 18 EXECUTIVE DIRECTOR KENNY: Dr. Burke, just to 19 make sure I was clear --BOARD MEMBER BURKE: I'm talking about this 12 20 21 and a half million dollars that's been --BOARD MEMBER RIORDAN: You have to add it to the 22 23 other part of the equation. 24 BOARD MEMBER BURKE: Okay. So let me add it to 25 the other part of the equation.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

406

BOARD MEMBER HUGH FRIEDMAN: I'm not suggesting that we across the Board cut the match. The match, I think, is a good idea to leverage and expand the program. But there are districts that may have hardship. I don't know how to define that. We've been struggling a little bit with that. I heard several of our colleagues. And I'm just wondering before we -- if there is some way we can accommodate need.

9 EXECUTIVE DIRECTOR KENNY: I think what we were 10 looking at, though, is if you look at the CNG That The CNG 11 That roughly 208 buses, is what we thought the \$25 million 12 would buy us. If you're looking at 12 and a half million 13 dollars on the diesel side for the new buses, that's going 14 to buy us roughly 167 buses, approximately.

15 And so what we're talking about is a total there, 16 and this is assuming a 25 percent match, is roughly 375 17 buses. And so as you reduce the match for hardship purposes, for example, on the pre-77s as Mr. McKinnon 18 19 suggested, if you drop it down to say a 20 percent requirement, that 20 percent reduction would cost 20 20 buses. Excuse me that five percent reduction would cost 21 20 buses. So we would drop from 375 down to roughly 355. 22 23 And each time --

24 BOARD MEMBER HUGH FRIEDMAN: That's assuming you
25 did that across the Board?

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

407

EXECUTIVE DIRECTOR KENNY: Assuming maximum -and that's assuming a maximum use of that money for those
buses.

4 CHAIRPERSON LLOYD: But that also assumes that 5 supposing Dr. Burke decides that he's got money there and 6 he can support buses in his district to make up that five, 7 so the numbers may not change.

8 EXECUTIVE DIRECTOR KENNY: You're absolutely 9 correct. I'm giving the most conservative possible 10 outcome here. 11 BOARD MEMBER RIORDAN: But those who are in, say, the larger air pollution control districts have more money 12 13 flowing to them with other, you know, means by which they can fund this. Little, you know, air pollution control 14 15 districts have zero, almost zero, of those discretionary 16 monies, because they don't have the, you know, the 17 population to support it.

18 Do you have to come up with the formula today, 19 but maybe we've come to the point where we've divided the pot, it seems as though there's a consensus. Maybe what 20 we would ask the staff is to think about it. I think it's 21 22 a very hard difficult decision to come to quickly, but maybe there is a hardship category that we could carve 23 24 out.

25 If you really think about it, if you take the --

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

408

1 I'll play the devil's advocate for a moment. For \$25,000 for some school district to get a wonderful new bus, 2 that's peanuts, it's just peanuts. I mean it's a 3 4 mid-sized car. So that is a real -- I hate to disturb --I hate to disturb that balance. It's our hardship cases 5 that we want to accommodate and maybe there's a way to do 6 7 that.

EXECUTIVE DIRECTOR KENNY: The one way we were 8 9 actually thinking about was Mr. McKinnon's a suggestion 10 which is that it's a pre-77 bus, then the match is a lower

11 match. And what that does is does really two things. It 12 incentivizes getting rid of the pre-77s to a certain 13 degree. And then what it also does is that there's an 14 assumption that a poorer school district would have more 15 pre-77s and so we would be helping the poorer districts by 16 reducing the match associated with them.

My question would be, you know, how much of a reduction in the match should there be if you accept both those assumptions.

20 BOARD MEMBER RIORDAN: I think those pre-77s are 21 all going to come out.

22 BOARD MEMBER McKINNON: I floated ten percent 23 earlier and maybe that was a little extreme. So why don't 24 I float 15. I think I can't think of a simple way to 25 formulate this. I mean we're going to hand the Energy

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

409

1 Commission this money, lucky them.

2 (Laughter.)

BOARD MEMBER McKINNON: So I guess what I would propose is 15 percent instead of 25 percent, if it's a pre-77 bus.

BOARD MEMBER BURKE: What about this, Mr.
McKinnon. Say we put 20 million in retrofit and put five
million and give buses away to hardship districts?
CHAIRPERSON LLOYD: That would come back to the

10 same question, how do you define hardship?

11 BOARD MEMBER BURKE: How are you going to on 12 pre-1977?

BOARD MEMBER MCKINNON: Yeah, I'll tell you the mix between new diesel and CNG That significantly with what I thought we did come to consensus at. If we're going to fiddle with that some more, then I don't think we want to do that.

18 BOARD MEMBER BURKE: How did it change, I missed 19 that?

BOARD MEMBER McKINNON: We did the 12,5, 12,5
right?
BOARD MEMBER BURKE: But that's for diesel

23 retrofit?

24 BOARD MEMBER McKINNON: It's diesel retrofit and 25 new diesel, the mix. So if we increase retrofit to 20,

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

410

1 it's got to come from somewhere.

2 BOARD MEMBER BURKE: Well, it was coming from 3 that other 12,5.

4 (Laughter.)

5 BOARD MEMBER McKINNON: You don't want to replace 6 pre-1977 buses with retrofit. We want to replace the 7 buses.

8 BOARD MEMBER BURKE: That's what I said. Take a 9 pool of money, whatever the number, and wherever we take 10 it, and I was just kidding when I said take it -- I wasn't 11 kidding.

12 (Laughter.)

BOARD MEMBER BURKE: But, you know, if you took a 13 pool of money and said, hey, you know, we got a lot of 14 15 agricultural, rural areas which are in desperate need, 16 have small populations, it's just like Ms. Riordan said, 17 they have a small population-base. The large districts have more access to money, no question about that. But we 18 19 have larger problems most of the time and that's why we have it. 20

But say you took a pot of money, say \$5 million, and you said okay, in those rural areas the max is going to be a thousand dollars or ten thousand or five thousand or whatever, whatever number you pick. Then you're really making a significant difference to a rural school

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

411

district, because they can really afford that. 1 And in the areas where they have the worst air 2 conditions, then a retrofit and you get a maximum bus 3 4 impact in those areas. And I'm willing to reopen the CNG 5 That 6 BOARD MEMBER DeSAULNIER: Please, God, no. 7 (Laughter.) BOARD MEMBER McKINNON: Here we go. I'm looking 8 9 at some of the school districts that are a hundred percent 10 pre-77, and the Grossmont School District that's fairly

11 urban anymore.

BOARD MEMBER BURKE: We've got some right in the South Coast.

14 BOARD MEMBER McKINNON: Del Mar.

15 Anyway.

16 BOARD MEMBER BURKE: That's not poor now. We're 17 talking about poor.

BOARD MEMBER McKINNON: I would argue that we
reached a consensus on the mix and, you know, I don't know
if I want to reopen that.

21 CHAIRPERSON LLOYD: I like the idea that maybe 22 someone mentioned earlier that is it possible that as I 23 say we quit when the going is good here and ask staff 24 maybe to take a month there to look at this whole issue of 25 match and how we address the hardship cases? Would that

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

412

1 make any sense?

2 EXECUTIVE DIRECTOR KENNY: We can do that or we 3 could essentially take the other suggestion that was put 4 forward of reducing the match on the pre-77s with the 5 assumption being that we'd probably end up addressing the 6 hardship cases by implication.

7 CHAIRPERSON LLOYD: But that's reducing, not 8 eliminating.

9 EXECUTIVE DIRECTOR KENNY: Exactly. Right now,10 we're at a 25 percent match. What I was hearing was

essentially a reduction in that match down to 15 percent and it's a pre-77 bus. Then what ends up happening essentially, is that a rural district that's replacing that bus is essentially going to buy a new bus for roughly \$15,000.

16 BOARD MEMBER HUGH FRIEDMAN: The only problem 17 I've got with that, Mr. Kenny, is according to this, the Grossmont Union High School District, I assume that's down 18 19 in Mount Helix, Grossmont, that's a fairly affluent area, it's somewhat mixed, in southern California, near San 20 Diego, if that's the one that I'm familiar with, it's got 21 22 82.61 percent pre-77 in that school district. Out of 23 school buses, 82.61 percent are pre-77. 23

And I would like to think that through a few bake sales and so forth, they could raise enough money to make

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

413

some matches. I know a lot of people that live in that
 district.

3 EXECUTIVE DIRECTOR KENNY: One other suggestion that the Board could consider is essentially a reduction 4 in the match to 15 percent in a situation where it's a 5 pre-77 bus and the CEC who is administering the 6 distribution of the new bus money makes the determination 7 8 that, in fact, the school district does have a hardship of 9 some type and we identify that as essentially --10 BOARD MEMBER RIORDAN: That's a great idea, Mr.

11 Kenny.

12 (Laughter.)

EXECUTIVE DIRECTOR KENNY: I'm just trying to move us along. And we could provide that direction from the Board to the CEC.

16 CHAIRPERSON LLOYD: Can you use those words 17 again?

EXECUTIVE DIRECTOR KENNY: Well, what I would suggest is that we go with the pre-77 reduction in the match down to 15 percent and the additional requirement that the school district, for example, be below the 50 percentile line in determining of maybe the dollars available per capita or something like that.

I don't know the exact language, but the key direction by the Board, which I'm suggesting, would be

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

414

1 that we are looking at the poorer school districts and we
2 could identify that in some dollar fashion.

3 CHAIRPERSON LLOYD: Yes. And that we would work
4 with the CEC That that?

5 EXECUTIVE DIRECTOR KENNY: We would just simply 6 give CEV that direction that that's the way that this 7 Board has asked them to distribute the money for the new 8 buses.

9 CHAIRPERSON LLOYD: And then would we -- let them 10 do it, but it would be nice also to have ARB staff also 11 agree to that.

12 EXECUTIVE DIRECTOR KENNY: That would be fine. 13 CHAIRPERSON LLOYD: Say when CEC That up That 14 that, ARB is involved -- staff is involved with that 15 decision as well.

EXECUTIVE DIRECTOR KENNY: What we could do, if the Board wishes, is that we could essentially sit down with the CEC That That out some kind of a calculation methodology which does reflect what the poor 50 percent of the school districts in the state are so that we have identified them and those are the ones that get the reduction in the match.

BOARD MEMBER RIORDAN: And I think your school people that have been here today can give you it, because I did hear a couple of suggestions that I thought would

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

415

1 work, but because of the constraints of time, you can't
2 really explore them. But I'll bet there's a little bit of
3 a system that gives you some guidelines for determining
4 which district might have a quote "hardship" case.

5 EXECUTIVE DIRECTOR KENNY: I think you're correct 6 and I don't think this would be very hard to identify.

7 CHAIRPERSON LLOYD: And I think many of the 8 school districts are back there, and I see Steve still 9 there. So I think they can hear that, so good suggestion. 10 So I think is that -- so the form, as you know, we have a 11 resolution before us.

12 BOARD MEMBER D'ADAMO: Another issue. 13 I thought you were just on the match issues. That should be easy to dispose of. I think that we ought 14 15 to include in the resolution some statement of need for 16 the future, and I don't know how we assess that. There's 17 been a lot of testimony, a hundred million next year. Maybe it should go five years. I think we need to go 18 19 beyond just conjecture and have something based upon any data that's been collected, so that it can be utilized by 20 21 whoever in the coming months.

BOARD MEMBER DeSAULNIER: Maybe the Legislationcan be written to give this Board less discretion.

24 (Laughter.)

25 BOARD MEMBER RIORDAN: You may regret that.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

416

BOARD MEMBER HUGH FRIEDMAN: Well, as we all 1 know, the Administration is in the process of not only 2 dealing with energy issues statewide, but with beginning 3 4 to develop a budget. And I think the sooner we could begin whatever process we want to initiate or get our 5 licks in, in terms of a follow-on appropriation for and 6 ensuring next year's purchases and retrofits and the like. 7 8 And yeah we ought to urge the Legislature to see if they 9 can do it this time.

10

CHAIRPERSON LLOYD: Well, maybe a hundred million

11 is a good round number.

12 BOARD MEMBER McKINNON: For next year. 13 BOARD MEMBER D'ADAMO: But I was really hoping 14 that it would be based upon some information, and 15 hopefully the staff knows what the need would be, how much 16 would it cost, how long would it take? 17 BOARD MEMBER HUGH FRIEDMAN: You've got to have a 18 rationale. For example, what would it take to get rid of 19 all pre-77 buses that don't meet safety standards, that are the most polluting, and giving effect to what 20 hopefully will occur under this existing appropriation? 21 22 That might be one way to quantify it. 23 EXECUTIVE DIRECTOR KENNY: We can put that 24 together. 25 CHAIRPERSON LLOYD: So we would include that in PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345 417 1 the resolution, yes. And I guess the number to come up 2 with later. 3 Yes. 4 BOARD MEMBER McKINNON: I want to say the obvious. I thank God I didn't have to work on this for 5 the last year. And I want to say thank you to the staff 6

8 feels this way, but thanks.

7

9 CHAIRPERSON LLOYD: I certainly would echo that.10 I know many of the staff have been working on other issues

that had to do this balancing act. And I'm sure everybody

11 here and I think it's tremendous when we hear people
12 coming up today to congratulate the staff for all the hard
13 work you've put in.

14 And we understand also very well what you put 15 together here.

16 So I think we have a resolution. I think we've 17 got the ingredients and hopefully you've got the 18 ingredients there of the fuel split. Then we've got on 19 the diesel side, we've got 12 and a half million for 20 traps, 12 and a half million for new green diesel. And 21 then we're talking about the match is going to come back 22 to CEC That then the resolution including the 23 recommendation for continued funding.

24 BOARD MEMBER BURKE: So moved.

25 BOARD MEMBER RIORDAN: Second.

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

418

1 CHAIRPERSON LLOYD: All in favor say aye? 2 (Ayes.) 3 CHAIRPERSON LLOYD: Nay? 4 (Nayes.) 5 CHAIRPERSON LLOYD: Well, thank you very much indeed. It's been a very long day. I appreciate staff 6 all you've done and stayed together. 7 8 Just a reminder before we adjourn this meeting. 9 BOARD MEMBER RIORDAN: We start at 8:30, Mr. 10 Chairman.

CHAIRPERSON LLOYD: I'd like to adjourn the 12 meeting until 8:30 in the morning, so 8:30, bright and 13 early. Thank you all very much. The Board meeting is officially adjourned until 8:30 in the morning. (Thereupon the Air Resourced Board meeting was adjourned at 8:30 p.m.)

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

1	CERTIFICATE OF REPORTER
2	I, JAMES F. PETERS, a Certified Shorthand
3	Reporter of the State of California, and Registered
4	Professional Reporter, do hereby certify:
5	That I am a disinterested person herein; that the
6	foregoing Air Resources Board meeting was reported in
7	shorthand by me, James F. Peters, a Certified Shorthand
8	Reporter of the State of California, and thereafter
9	transcribed into typewriting.
10	I further certify that I am not of counsel or

11	attorney for any of the parties to said meeting nor in any
12	way interested in the outcome of said meeting.
13	IN WITNESS WHEREOF, I have hereunto set my hand
14	this 29th day of December, 2000.
15	
16	
17	
18	
19	
20	
21	
22	
23	JAMES F. PETERS, CSR, RPR
24	Certified Shorthand Reporter
25	License No. 10063

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345