

BEFORE THE
CALIFORNIA ENERGY COMMISSION

In the matter of,)
)
Preparation of the) Docket No. 10-BAP-01
2011 Bioenergy Action Plan)

Staff Workshop
on Draft 2011 Bioenergy Action Plan

CALIFORNIA ENERGY COMMISSION
HEARING ROOM A
1516 NINTH STREET
SACRAMENTO, CALIFORNIA

TUESDAY, DECEMBER 14, 2010
1:00 P.M.

Reported by:
Peter Petty

COMMISSIONERS:

James D. Boyd, Vice Chair

Sarah Michael, His Advisor

STAFF

Garry O'Neill

Bioenergy Interagency Working GroupMembers Present

Casey Walsh Cadey, CDFA
Kitty Howard, ARB
Judith Iklé, CPUC
Cathy Bleier, Cal Fire
Steve Kafka, Biomass Collaborative
Howard Levinson, Cal Recycle
John Menke, SWRCB
John Blue, Cal EPA

Also PresentStakeholders

Julee Malinowski-Ball, Public Policy Advocates
Michael Theroux, JDMT
Gregory Stangl, Phoenix Energy
Brett Storey, Placer County
Nick Lapis, Californians Against Waste
George Larson, Waste Management
Tim Tutt, SMUD
John Shears, CEERT
M. Mark Mayuga, CALMETHA
Tamara Rasberry, Sempra Energy Utilities

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P R O C E E D I N G S

1
2 DECEMBER 14, 2010

1:08 P.M

3 VICE CHAIR BOYD: Welcome. I'm Jim Boyd, Energy
4 Commissioner, Vice Chair of the Commission, and long time
5 Chair of the State Bioenergy Interagency Working Group, or
6 what other titles it's had during my long career of pushing
7 this subject. I certainly want to thank all of you for
8 being here today. For those of you who may be tuning in on
9 WebEx, thank you for joining us for this workshop on the
10 Multi-Agency Staff's Draft of a 2011 Bioenergy Action Plan.

11 This is a workshop being hosted and facilitated by
12 the Energy Commission, but is really a workshop of and for
13 and by all the agencies who are members of the working
14 group, and I appreciate all of the representatives of the
15 agencies being here. This Commission is well-represented by
16 many folks, I just wanted to be here because I've invested
17 so much of myself in this subject matter, and I wanted to
18 absorb some more input on the subject. I don't promise that
19 I can stay the entire day, my calendar calls for a committee
20 meeting late in the day, but perhaps we'll be done in time.
21 Pending any drills of nuclear issue, or something in this
22 state, which interrupted me last week unexpectedly, why,
23 I'll remain here for the duration of the afternoon. When I
24 came to work here nine years ago, I was handed the very easy
25 job of State Liaison to Nuclear Regulatory Commission

1 because nothing ever happens, and nothing has happened, but,
2 boy, they have lots of drills and there are lots of issues,
3 so you never know.

4 Well, the Inter-Agency Working Group consists of a
5 number of State agencies, involved in Bioenergy issues, we
6 used to say "Biomass," we changed it to "Bioenergy" which
7 involves biofuels and biopower, but it can be whatever focus
8 you particularly want to give it, it's kind of using those
9 materials, a lot of which are in our waste streams, and
10 putting them to good use. And I want to add to my welcomes
11 the representatives of the ARB, the PUC, Cal Recycle, the
12 Water Resource Control Board, Food and Ag, Forestry and Fire
13 Protection, known sometimes as Cal Fire, Cal EPA, and our
14 friends at the Biomass Collaborative located at UC Davis,
15 thank you, Steve. We've been working together for more than
16 five years -- in reality, more than 10 years that I can
17 recall -- to undertake programs to promote biomass use and
18 bioenergy, in particular, in the state, and the Energy
19 Commission as the lead agency continues to appreciate the
20 interest and everyone's continued participation in this
21 subject. Each passing year, it gets more likely that we're
22 going to achieve some additional success and make greater
23 strides, and that's kind of taken place each year, it's just
24 that some of us may retire before we get it totally done.
25 One of the panel members is doing that soon, I regret to

1 say.

2 The State, through various Governors, but in
3 particular through Governor Schwarzenegger, and his
4 Executive Order really pushed this subject for us, we have a
5 20 percent target for biomass within the established goals
6 for our renewable energy generation and California has a
7 quite ambitious renewable portfolio standard to be followed
8 in future years by a renewable energy standard. And that
9 has provided incentive for us. We have a goal of producing
10 a minimum of 20 percent of our biofuels from California fuel
11 stock by 2010, and 40 percent by 2020, and 75 percent by
12 2050; ambitious as they sound, I think we've made the 2010,
13 but the others will be a goal that we have to stretch to
14 reach.

15 Adoption of the Low Carbon Fuel Standard by the ARB
16 and the Energy Commission's so-called AB 118 program, which
17 is the Alternative Vehicle Technology and Alternative Fuels
18 Program, have each given a significant boost to the concept
19 of, and the ultimate use of, biofuels and the development of
20 same in California. Over the last two years, the Energy
21 Commission allocated about \$45 million to biofuels and
22 infrastructure for biofuels, and of that amount has
23 recommended \$21.5 million be spent on four biomethane
24 projects. And the 2010-2011 Investment Plan for the same
25 program allocates \$32.5 million for what we might call

1 "Green Gasoline," "Renewable Diesel Biofuels," and
2 "Renewable Natural Gas" or "Biogas." And in the last few
3 months, a new term has been coined; I've been talking about
4 "biogas" a lot, but RNS, Renewable Natural -- RNG -
5 "Renewable Natural Gas" has become a new term that you will
6 probably be hearing more and more about. In fact, a few
7 weeks ago, I went to somewhat of a symposium on the subject
8 and many of the members of the group agreed to create a
9 special organization to promote renewable natural gas in the
10 state. So, we'll be hearing more of that.

11 Cumulative gasoline displacement over the next two
12 years from these various projects that I've mentioned is
13 estimated to be about 885 million gasoline gallon
14 equivalents, so that's a pretty good down payment investment
15 on using biomaterials for displacing our over-dependence on
16 petroleum, as well as addressing the other goals that many
17 of the agencies here represent energy security through
18 energy diversity, addressing greenhouse gas emissions, air
19 quality, in general, addressing some of our needs to use our
20 waste stream to save our forests, or to provide for our
21 agricultural industry to have other opportunities to use
22 their waste materials, as well as other opportunities to
23 maybe generate some revenue, as well as addressing issues
24 related to water quality problems, so on and so forth. So,
25 these are just a few of the things we're trying to address

1 with this effort.

2 For Fiscal Year 2009-2010, the Energy Commission
3 provided about \$15 million in financial support from our so-
4 called existing Renewable Energy Program, this is a long-
5 time program of sustaining renewable energy and renewable
6 electric generation facilities. This has been way too long
7 when the original thought was to provide subsidies and
8 incentives to get new industries, businesses, and what have
9 you, on their feet, but the multiple policies it takes to
10 implement something like that haven't fallen in place, so we
11 persist in providing that support, but I look forward to the
12 day that all the policies are finally lined up and
13 appropriate, and the economic incentives can disappear
14 because pure economics takes care of sustaining a lot of
15 these activities. We have provided for 27 solid fuel
16 biomass plants and about 680 megawatts of energy have been
17 generated, and the PUC through their efforts to sustain the
18 Renewable Portfolio Standard have worked hard, indeed, to
19 have our utilities meet their commitments, at least our
20 private utilities, and meet their commitments for Renewable
21 Portfolio Standard, and some of that helps sustain our
22 biomass power. I would just like to see more.

23 And we have talked for years about hurdles that have
24 to be knocked down, and that is occurring. Just last
25 week, the Central Valley Regional Water Quality Control

1 Board voted to approve the Final EIR certification for a
2 waste discharge regulatory program for dairy manure
3 digesters and co-digestion facilities within the Central
4 Valley, and this is something that has been very problematic
5 for that particular type of program activity, and I commend
6 the Central Valley Regional Board because, when they first
7 offered to take this on, those of us veterans who have been
8 through some of this before wished them well; well, then did
9 well, and they succeeded, and I compliment them for having
10 done that. Cal Recycle is also finishing work on EIR for
11 anaerobic digestion for urban waste stream, and I think, if
12 I'm not mistaken, Howard will have something available in
13 draft form pretty soon for folks. So, members of this group
14 and State agencies are beginning to take actions - well, not
15 beginning to take the actions, the actions they've been
16 trying to take for a long time are beginning to bear fruit.
17 So, these types of programmatic EIRs are intended to reduce
18 costs and timeframes, and hopefully we can spread this kind
19 of successful taking on some of the hurdles to other
20 components of the overall program that many of our agencies
21 represent. As I said, our requirement for renewable energy
22 resources has spurred bioenergy development. Contracts for
23 renewable energy purchases by the IOUs have been approved of
24 late at unprecedented rates, at least per the past, by the
25 PUC. And we are glad that the agency remains supportive of

1 bioenergy as a base load and renewable power source. And we
2 really need to emphasize that base load component more
3 because people are overly infatuated right now, almost, and
4 understandably and necessarily, with solar and wind, but
5 they are intermittent forms of power, and biomass is base
6 load power, therefore substituting for fossil fuel uses,
7 even though in this state we're dominated by the cleaner
8 burning fossil fuel and natural gas, nonetheless biomass
9 offers us a major contribution to reducing greenhouse gas
10 emissions, and so we'd like to see a lot more. CalFire
11 continues to lead efforts to ensure the use of forest
12 residues for energy projects that are done sustainably, and
13 I know that has been an incredible tough road to hoe, road
14 to travel, and they're still at it, and it still represents
15 a significant area of improvement we can make, and a
16 significant contribution to forest health and not burning
17 them down, and contributing to good uses of waste. And in
18 the last year, in particular, local governments more and
19 more, hearing about this group, have called at least me and
20 maybe others, particularly Cal Recycle, I'll bet, interested
21 in exploring alternatives to putting waste into landfills is
22 growing as communities recognize they've been unable to
23 control the flow of materials to landfills, and landfills
24 are filling up and getting more scarce, and you read more and
25 more about proposals to rail waste long distances to take

1 care of people's waste stream. So, we are going to push
2 real hard from now on, on getting our hands on more and more
3 of that particular waste stream to use for energy
4 production. And you'll hear more from us later on that
5 subject, but some folks, some I see sitting in this room,
6 have provided some leadership in that area, particularly
7 from some local governments, and that is recognize -- we
8 have a poster child or two projects sitting in this room in
9 terms of some of the advocates. And we will continue to
10 advocate -- I've advocated for the use of our waste stream
11 for energy production for more years than I'd like to think
12 about, and the progress has been slow, but we've seen some
13 exciting opportunities that have been capitalized on, and we
14 see opportunities in the future as innovative technologies
15 begin to come on line that can create electricity or
16 renewable natural gas and low carbon fuels from waste
17 streams. And the technological challenge has been there for
18 a long time, I think it's kind of been met. We have some
19 artificial constraints based on fears of the past that need
20 to be addressed and taken care of, and that's the task
21 before us in 2011.

22 So, we want to continue to take advantage of these
23 opportunities. The Draft 2011 Bioenergy Action Plan
24 outlines actions that State agencies have put forward to
25 consider for implementation over the next two years to

1 promote bioenergy. The plan describes current opportunities
2 and challenges that face the industry. It identifies
3 actions that agencies and the working group are taking, or
4 will be taking, to help achieve these goals, identifies
5 legislative and regulatory actions that may well be needed,
6 but we really need to hear from you, the public, the
7 stakeholders, and the folks who are affected by this on what
8 else needs to be done, what else may be needed, what aren't
9 we addressing vigorously enough, what have we left off the
10 list, perhaps? So, that's what I think all of us look
11 forward to hearing about today, that's certainly what I look
12 forward to hearing about. And so I conclude my long welcome
13 with, again, a thanks to all of you for being here and look
14 forward to hearing from you. My Advisor, Sarah Michaels,
15 there she is, has joined me in this crusade and has been
16 working very hard on this. And as I have said in several
17 circles, 2011 is my last year as a Commissioner, my term
18 runs out in January of 2012, I have no desire to come back,
19 as fun as it might be, because a lot of young people that I
20 remember almost hiring are retiring, and I'm still here --
21 Kitty is the next one going out the door here. In any
22 event, and there's a lot of good folks here to turn this
23 crusade over to, but I am really going to dedicate myself to
24 this topic next year, I don't care about burning bridges
25 because I'm not running for anything, including elective

1 office, so I hope to call it like it is and see if we can't
2 move some of this along. So, with that, I'd like to ask my
3 friends from other agencies if anybody would like to say
4 anything before I turn it over to the staff and John to --
5 or Gary, I guess, to really carry this program forward for
6 the rest of the day. Kevin Barker, where are you, Kevin?
7 Kevin is Advisor to Commissioner Weisenmiller, who is the
8 other member of our Renewables Committee here, which I
9 happen to Chair, and here at the Commission we do things
10 under the auspices of Committees, so I have to realize that
11 this isn't my own personal crusade, but once in a while I
12 have to get another Commissioner, and it's easy to get
13 Commissioner Weisenmiller lined up, so, Kevin, thanks for
14 being here to tell Commissioner Weisenmiller about what it
15 is his fellow Commissioner is about to dedicate himself to.
16 All right, with that, any comments? Mr. Menke.

17 MR. MENKE: Uh, question for you. You probably are
18 the only one here that knows, what is the status of our
19 interaction with the Governor's Office and the Legislature?
20 This is sort of a Governor's Order that we're dealing with
21 and I'm just trying to make sure you're still in touch with
22 the new Governor on this?

23 VICE CHAIR BOYD: Well, he's a little busy at the
24 moment with a few billion dollars, but I do know a few
25 people associated with the new Governor, and this will be

1 the second time around for him and me, so I'm fairly
2 confident -- I have plans to talk to the Governor's folks
3 about this, I have a few in mind, a few friends that -- and
4 I don't anticipate that we'll get anything but
5 encouragement, but honestly don't expect him to be doing
6 anything but trying to figure out how to solve the \$26, 27
7 or 28 billion revenue shortfall, and I give him credit for
8 not wanting to kick the can down the road one more time
9 because it will take us all with it if we do that again.
10 So, based on my experience as Executive Director of the Air
11 Resources Board under the incoming Governor, I anticipate
12 words of encouragement eventually, when they can focus on
13 it. The Legislature changes so quick that it's kind of hard
14 to know. It does that, too, but we have -- there are folks,
15 I think, willing to step forward and help us when needed and
16 the "when needed" is something I want to emphasize because,
17 often times, we hear we need legislation to do this, that,
18 and the other, and it turns out to be we need different, or
19 better, or appropriate, interpretation and implementation of
20 legislation that already exists. That is particularly true
21 about CEQA, and nobody has brought up CEQA in this forum,
22 but people are always saying, "Well, we've got to change
23 CEQA because it's getting in the way of something." And it
24 usually turns out to be that agencies are a little too risk
25 averse, or in their interpretation of the law, or their

1 implementation of the law, and we usually work those kinds
2 of things out amongst ourselves, and keep things moving.
3 So, hopefully we can do some of that. If we need
4 legislation, we'll pursue it. But some of us recently have
5 -- and some of you have found administrative interpretations
6 that allow some of these issues to move forward without
7 having to subject ourselves to the -- I won't say it --
8 caprice of the Legislature, no, I won't say that - to the
9 Legislative process. Anyway, long answer to a short
10 question, John. No other questions? Gary, you're going to
11 take it over and I'm just going to be sitting here absorbing
12 stuff.

13 MR. O'NEILL: Okay. Before I begin, I want to open
14 it up to the panel to introduce themselves and provide any
15 opening remarks that they would like to make. We can start
16 with Casey over here.

17 MS. WALSH CADEY: Good afternoon. I'm Casey Walsh
18 Cadey with the California Department of Food and
19 Agriculture, sitting in for Secretary Kawamura.

20 MS. HOWARD: I'm Kitty Howard with the California
21 Air Resources Board.

22 MS. IKLÉ: I'm Judith Iklé of the California Public
23 Utilities Commission.

24 MS. BLEIER: Cathy Bleier of the California
25 Department of Forestry and Fire Protection.

1 MR. KAFKA: Steve Kafka with the California Biomass
2 Collaborative.

3 MR. LEVINSON: Howard Levinson with Cal Recycle.

4 MR. MENKE: John Menke with the State Water Board.

5 MR. BLUE: I'm John Blue with Cal EPA.

6 MR. O'NEILL: And one more little housekeeping
7 thing. When the members are speaking to the public, please
8 state your name first for the people on the WebEx. Thank
9 you. My name is Gary O'Neill and I've been working on the
10 Bioenergy Action Plan, I took over for staff a few months
11 back and I've been trying to get up to speed and get the
12 report out the door, so hopefully we've got a good working
13 document. For those of you on the WebEx, meeting materials
14 can be downloaded off our website, this is the web address.

15 And so the purpose of this workshop is to present
16 the 2011 Bioenergy Action Plan and the actions that the
17 agencies have agreed to work on. These are proposed actions
18 at this time, we really need stakeholder feedback and public
19 feedback on those actions and to know if we've missed any
20 challenges that are very important, that is really hindering
21 bioenergy development. And we need additional
22 recommendations for state actions that can address those
23 challenges, and also other comments as necessary.

24 So, the policy drivers behind the Bioenergy Action
25 Plan is the Governor's 2006 Executive Order, which set a 20

1 percent goal for bioenergy biopower production in California
2 by 2010 and going forward, and then, also, 20 percent of
3 biofuels produced in-state. What that means is that 20
4 percent of the biofuels that we use in-state will be
5 produced in-state, and 40 percent by 2020, and 75 percent by
6 2050. Other Executive Orders are Governor's Executive Order
7 S1408 and S2909, which increase the renewable electricity
8 standard for the LSEs up to 33 percent by 2020. Low Carbon
9 Fuel Standard, which is requiring a reduction of carbon
10 intensity of fuels by 10 percent, and then the Federal
11 Renewable Fuels Standard and AB 32 and other climate change
12 policies.

13 The Bioenergy Working Group is comprised of nine
14 State agencies, the Air Resources Board, the Energy
15 Commission, Cal EPA, California Department of Food and Ag,
16 the California Department of Forestry and Fire Protection,
17 the Department of General Services, the Public Utilities
18 Commission, Cal Recycle, which is the Department of
19 Resources, Recycling, and Recovery, formerly California
20 Integrated Waste Management Board, and also the Resources
21 Control Board.

22 The Bioenergy Action Plan was first published in
23 2006 and it contained more than 50 actions that were
24 developed by the Interagency Working Group to address the
25 challenges that were brought to light in 2006. Since then,

1 we've had two progress reports in 2007 and 2008, and these
2 progress reports have pretty much shown that progress has
3 been very slow, or stagnant, or we're even losing ground in
4 some areas. Projects are shutting down, or Ethanol plants
5 are idled or curtailed drastically, and so are several
6 bioenergy facilities. In the 2009 Integrated Energy Policy
7 Report, the Energy Commission recommended updating the
8 Bioenergy Action Plan to reflect current challenges facing
9 bioenergy and to bring to light new actions that State
10 agencies can take to bring more power on line.

11 So, we held our first workshop to develop the 2011
12 Bioenergy Action Plan in June 2010, to identify challenges
13 and recommendations for actions. Staff brought these
14 recommendations and additional actions to the working group
15 and we kind of worked through these actions to come up with
16 the current plan. Based on comments from this workshop, the
17 staff planned to go back and revisit some of those actions
18 and revisit some of the text of the plan to reflect the
19 comments, and we hope to have a finalized Bioenergy Action
20 Plan by March of 2011.

21 The objectives of the 2011 Bioenergy Action Plan are
22 fairly straightforward and we simply want to increase
23 bioenergy production at existing facilities; we see these
24 facilities as being -- they're already built, so it's going
25 to be very cost-effective if we can increase energy

1 production at these facilities. We're not going to be able
2 to meet our goals without constructing new bioenergy plants,
3 so obviously we're going to have to construct many new
4 biofuels facilities. There's an estimate inside the plan
5 discussing how many new biofuels facilities we will need to
6 meet the 2020 goal, and we also have estimates for some of
7 the bioenergy projects that have been proposed.

8 Integrative bioenergy facilities, this is a pretty
9 creative idea, it's using bioenergy facilities, placing
10 bioenergy facilities at other facilities that have processed
11 wastes or residues such as material recovery facilities,
12 landfills, food processing plants, and we also encourage co-
13 firing at natural gas and coal facilities. Natural gas
14 plants can co-fire with biogas very easily, and coal
15 facilities can co-fire with a small amount of biomass very
16 easily. It gets a little bit more difficult or tricky if
17 you want to co-fire with higher levels. Additional
18 objectives are to commercialize the next generation of
19 emissions control equipment and generation equipment. There
20 are a lot of technologies in the woodwork, such as
21 gasification pyrolysis, that can meet the Air Quality
22 Standards in non-attainment districts very -- I don't want
23 to say "easily," but they may be able to meet them. And
24 there's pollution control equipment that is out there that
25 I've heard about that sounds very promising, and so we

1 really need to take a step up and commercialize these, you
2 know, provide funding to help commercialize these
3 technologies. And then, finally, to remove the statutory
4 barriers and the regulatory hurdles to bioenergy facilities,
5 or to all renewable facilities, for that matter. A lot of
6 these facilities are spending two years to try to get
7 permitted and get through the regulatory process and they
8 cannot get funding because banks and financial institutions
9 won't lend to them when they're in the permitting process,
10 until they get their permits in hand.

11 So, through all of our stakeholder workshops and
12 other public processes, we came up with a pretty extensive
13 list of challenges facing bioenergy development. The report
14 goes on for a very - it's a pretty extensive chapter that
15 was helped put together by the Working Group and the
16 Collaborative. So, this is kind of a brief summary of those
17 challenges that we have identified. So, for Siting and
18 Permitting, there's developer and clients costs, there are
19 some instances where there is a lack of policy and
20 regulatory coordination, biogas quality standards, some of
21 the stakeholders have indicated that a streamlined, uniform
22 Biogas Quality Standards could help them come on line, and
23 then utility interconnection rules seem to be posing a
24 particular hurdle to small developers. Sustainable
25 feedstock sourcing and transportation, mostly this has to do

1 with the high cost of transporting biomass feedstock to the
2 facilities. Economics and Financing, there is the existing
3 facilities are finding it difficult to compete for fuel with
4 new bioenergy facilities. There's competition between
5 biofuels and fossil fuels, and then, as I mentioned earlier,
6 biomass feedstock market -- actually, I did mention this
7 earlier -- biomass feedstock market is very uncertain. You
8 can't enter into -- most feedstock providers won't enter
9 into long term contracts for you, which also affects the
10 project financing. Statutory and Regulatory Issues -- there
11 are restrictions on landfill gas injection into the
12 pipeline. Stakeholders state that this is an incorrect
13 restriction for non-hazardous waste landfill gas. The
14 Renewable Energy Program will be expiring and so will the
15 PIER Program, these are two statutory issues that should be
16 addressed. And then, the PIER Program provides funding for
17 research and development of various programs.

18 So, what I've provided here are select actions from
19 the Action Plan, I'm not going to go through every action
20 that is in the plan, but I'll provide a taste and kind of
21 some background as to why we chose these actions, and what
22 they're supposed to address. So, first, we've got designing
23 a web-based portal for permitting guidance and links. New
24 biomass projects must acquire various local and State
25 permits which are critical to obtain project financing and,

1 in general, lenders will not consider financing new projects
2 until they've obtained their permits. The purpose of this
3 permitting hurdle will be to have a one-stop-shop for
4 permitting links and guidance, to help small scale
5 developers get their projects developed quicker. The next
6 action, the CPUC will review the Rule 21 tariff
7 interconnection process for bioenergy facilities. The
8 interconnection process has posed challenged for biopower
9 developers. Small developers find, as I mentioned, that the
10 process can be daunting and very expensive. Source Testing
11 Data -- the funding for fuel source testing for small
12 bioenergy developers seeking to switch or add a new fuel
13 source may require the facility to pay for source testing to
14 show that the new fuel will meet air emissions limits for
15 local air districts, and the cost of this testing can be
16 cost prohibitive to those small developers. So, we're
17 proposing to fund the testing for select fuels, those fuels
18 will be selected through a stakeholder process that will be
19 handled between the Energy Commission and ARB, and then the
20 source testing data will be shared with local air districts,
21 and hopefully that will alleviate some of the problems in
22 that area.

23 In the South Coast Air Quality Management District,
24 they are a non-attainment area for PM and PM Emission
25 Reduction Credits are very scarce. One of the ideas is to

1 use PM offset credits from wildfire fuel reduction
2 activities as a potential source of these credits, and the
3 benefit to biomass in this project would be that PM Emission
4 Reduction Credit revenues could go to fuel more fuel
5 reduction activities, providing more feedstock to biomass
6 facilities and, also, these PM credits could become
7 available to any facility that is looking to develop in
8 South Coast.

9 And the Energy Commission and the ARB, Cal Recycle,
10 and the CPUC will work with gas utilities on a public
11 process to resolve and address barriers to introducing
12 landfill gas in the natural gas pipeline. That one, I
13 think, is pretty straightforward.

14 So, Sustainability Standards -- the Energy
15 Commission, ARB and CalFire will work with the Interagency
16 Working Group to assess and define Sustainability Standards.
17 This is part of AB 118 and it benefits biomass because it
18 helps define rules for resource management in a way that
19 preserves the ability to continue providing the same level
20 of biomass benefits over time. The Energy Commission's PIER
21 Program will commit research dollars to update a Web-based
22 database that provides the volume and location of
23 biodegradable material that can be used at wastewater
24 treatment plants. Some wastewater treatment plants use a
25 digestion process to help break down the solids in the

1 wastewater treatment process; one of the byproducts of
2 digestion is methane, which can then be used to produce
3 energy for the wastewater treatment plant, so the idea here
4 is that providing the location of these biodegradable waste
5 feedstocks can help wastewater treatment plants co-digest
6 this material, increase their gas production, produce more
7 energy, maybe offset their entire load, or produce energy
8 that can be exported to the Grid.

9 And the next item has to do with California's RPS.
10 Our RPS Unit and Cal Recycle are working together to
11 resolve, actually, to clarify what biomass is eligible for
12 the RPS Program. Right now, the Guidebook does not
13 specifically state that biomass that has entered the waste
14 stream, that leaves the waste stream, is eligible for the
15 State's RPS, so in the next quarter the RPS Unit will be
16 working to resolve that and clarify that in the RPS
17 Guidebook.

18 Regarding MSW conversion technology definition in
19 the statute, the Energy Commission, Cal Recycle, and the ARB
20 will continue to provide technical review of proposed
21 legislation that seeks to refine the definition and allow
22 conversion of MSW for biomass conversion in the statute to
23 be technically correct. Cal Recycle will -- I'm sorry, in
24 support of anaerobic digestive projects, Cal Recycle has
25 several actions in the Action Plan, these three are a select

1 few -- I'm sorry, there should only be two, that last bullet
2 belongs right above it. So, first, Cal Recycle will
3 participate on technical work groups convening the Climate
4 Action Reserve to develop protocols for carbon offsets, for
5 projects that divert and digest organic waste that would
6 otherwise end up in the landfills, and also update the
7 guidance documents that outlays Cal Recycle's regulations
8 and how they are applied to anaerobic digestion and
9 statutory requirements.

10 So, the collection and treatment of forest fire fuel
11 reduction residues has many benefits used at a biomass
12 plant. They help urban interfaced areas, using the biomass
13 at a biomass plant helps reduce the cost of fuel reduction
14 in urban interfaced areas, and they offset greenhouse gases.
15 So, in order to streamline the process for private
16 landowners looking to harvest forest biomass to reduce the
17 risk of wildfire, Cal Fire and the Board of Forestry are
18 developing a Modified Timber Harvest Plan for Fuels
19 Management and also providing training workshops.

20 Existing solid fuel biomass facilities in
21 California, those facilities that came on line prior to
22 1996, make up about 60-70 percent of the three largest IOUs
23 biomass procurement. This procurement also represents
24 roughly 15 percent of their total renewable claims in 2006,
25 which is the last date that we have verified their

1 procurement data. These facilities are finding it hard to
2 compete with new facilities for fuel under their current
3 fixed price contracts and the Energy Commission has
4 administered the Renewable Facilities Program which has
5 provided financial assistance to these facilities since, I
6 believe, 1998. This program is set to expire at the end of
7 2011, so the Energy Commission will explore options to
8 ensure that this program continues to provide some sort of
9 assistance to these facilities, and so they continue to
10 operate. Also, the CPUC will work with utilities in
11 existing facilities to ensure a streamlined, fair, and quick
12 process through which they can renegotiate their expired
13 contracts.

14 On the Biofuels side, the Energy Commission through
15 its Alternative Fuels Investment Plan is providing studies
16 for a low carbon cellulosic ethanol feedstock and other
17 studies on the modifications to possibly modifying existing
18 facilities to use cellulosic ethanol, as well. And those
19 would be the in-state corn ethanol plants. The Alternative
20 Fuels Investment Plan will also fund research to improve
21 conversion efficiencies of cellulosic biofuels derived from
22 straw, corn stover, timber, and the organic fraction of MSW.

23 So, in order to address the other economic and
24 financing challenges, the CPUC will be implementing their
25 feed-in tariffs, the SB 32 feed-in tariff, which I believe

1 is for 3 megawatts and below, and then the renewable auction
2 mechanism for projects 20 megawatts and below. The text in
3 red did not show up in the Action Plan that we released, it
4 was added afterwards.

5 Cal Recycle also offers financing through their
6 Recycling Market Development Zones Program to bioenergy
7 facilities that look to use fuels that are diverted from the
8 waste streams.

9 As I mentioned earlier, the Biogas Quality Standards
10 Project Developers state that uniform or clearer gas quality
11 standards for pipeline injection of biomethane would reduce
12 the burden and cost faced by small developers to meet the
13 standards. Right now, the utilities set their own standards
14 and these standards may differ slightly between each tariff.
15 CPUC also has tariff rules that are the same for each
16 utility, I believe, but I won't get into too much of that
17 because I'm not the expert. So, the CPUC will work with the
18 Energy Commission to examine these gas quality standards to
19 see if additional standards should be developed and adopted.

20 So, the implementation of the Bioenergy Action Plan
21 will be from 2011 through 2012. The Plan was designed so
22 that the actions could be completed, or at least significant
23 progress made on the actions, by 2012. The Working Group
24 will be meeting regularly to assess progress and identify
25 any other actions that may arise given resource

1 availability. The Energy Commission will continue to
2 measure the progress and report back through the IEPR,
3 through our progress to plan. We will also be including
4 more coordination between stakeholders and state agencies.
5 A lot of the actions in the current plan require that we
6 work with stakeholders through a stakeholder process, to
7 identify what the appropriate steps are that we need to take
8 to complete the action appropriately. The working group may
9 adopt additional actions as needed, as needed and when
10 resources become available. The Energy Commission staff
11 will make every effort to keep the current list of actions
12 and agency contacts on the Web so that stakeholders can have
13 an up to date list of what is being done and who is
14 completing these actions.

15 So, written comments on the Bioenergy Action Plan
16 are going to be due to the Energy Commission by 5:00 p.m. on
17 December 29th, just indicate the Docket number and that it's
18 in preparation of the 2011 Bioenergy Action Plan in the
19 subject line, and the address is on the screen.

20 I just want to take this time to acknowledge Energy
21 Commission staff who have provided a lot of information and
22 a lot of work to developing the plan, it probably wouldn't
23 be where it is today without their help and, also, input
24 from the Bioenergy Working Group. The plan has gone through
25 several review stages by the working group and I've gotten a

1 lot of really good comments and technical review from
2 everybody. So, at this time, I'd like to take comments from
3 Attendees first, and then we'll open up the phone lines and
4 take questions from the Web. We are going to be using our
5 blue card process, so if you'd like to make any comments or
6 if you have any questions, just bring up a blue card to one
7 of the Energy Commission staff lined up right over here.

8 So, the first card I have is from Julee-Malinowski-
9 Ball from the California Bioenergy Alliance.

10 MS. MALINOWSKI-BALL: Thank you very much. I'm
11 Julee Malinowski-Ball. I represent the California Biomass
12 Energy Alliance. I always like to take an opportunity to
13 distinguish ourselves because biomass is a quite broad
14 topic. We used to be the only ones in town, and we've been
15 joined by many new emerging technologies that we're excited
16 about, as well. But we're the solid fuel biomass power
17 producer, so we're taking wood wastes and residues and
18 generating electricity. We are part of the RPS, we help the
19 utilities meet their renewable portfolio state mandates, and
20 we are helping local governments divert waste from the
21 landfills. In fact, this is an industry that has diverted
22 over six million tons of wood waste annually for fuel. This
23 is a true net reduction. This industry also helps the State
24 of California meet its AB 32 requirements because it's a
25 carbon neutral technology, but when you look at the avoided

1 fates of the fuel, the landfilling and the open burning,
2 it's actually a net benefit. So, a true net reduction of
3 over 3.75 million tons of GHG emissions, each year, come
4 from this industry. An additional three million tons of
5 avoided GHG emissions per year result from the California
6 Biomass Industry's displacement of fossil fuel generation.
7 What this really means is that this almost 20 percent of
8 renewables are generated from biomass. This is not a small
9 industry for California and we think that the Bioenergy
10 Action Plan hit the nail on the head when one of the tier
11 issues is you need to protect the existing industry. You
12 know, this is your bird in the hand. And there are
13 challenges facing the industry and they are not the same
14 challenges that are facing, you know, the other technologies
15 out there, and I think it's probably fair in this report to
16 be very clear about, you know, what technologies are helping
17 what industries. It's better to be able to kind of track what
18 we need. But this is a mature industry, we've been around
19 since the 1980's, we're a product of the Federal Policy Act,
20 or PURPA, they're all qualifying facilities. But one of the
21 major problems that we face is not permitting, you know,
22 we're going to go into an area and either expand an existing
23 facility, we're going to re-start one of the many idle
24 facilities, that's happening today, and in some instances
25 we're going to go out and build a new facility, but it's

1 probably going to go more in that order, we're going to
2 expand existing re-start, idle, and then build new. But
3 we're going to go in there and we're going to deal with the
4 permitting issues that exist that day, and there is success
5 at doing that. In fact, what we're going to do is we're
6 going to build cleaner and better plants. A new plant
7 that's going to be built next year is going to have emission
8 control equipment, and it's going to be the cleanest in
9 North America, and that's thanks to the cooperation of the
10 company that's working on it in the San Joaquin Valley Air
11 Pollution Control District. In fact, a third of its budget
12 is going to be dedicated to pollution control equipment, and
13 that's a pretty amazing story to tell, especially in the
14 Central Valley. But, for the existing industry as a whole,
15 we do need to look at the economics and that's why, you
16 know, Commissioner Boyd kind of hinted at it before, you
17 know, how long does it take to get, you know, the biomass
18 industry to its economies of scale to succeed? Well, you're
19 looking at the industry wrong, there's no such thing as
20 economies of scale for this industry, you don't want to
21 build bigger and better and get to a certain point where you
22 reach an economy of scale; the point is that the fuel isn't
23 free, you know, we pay for it. And the contracts that all
24 the facilities have are arcane contracts, they just happened
25 -- no one ever looked at that contract and thought what that

1 would look like for the facilities, for the industry 20
2 years later, or 25 years later. So, the number one action
3 item for us is truly looking to the contracts and the PUC,
4 and they do need to be renegotiated and we do need your help
5 and guidance and input as we go to the utilities and talk
6 about the best way to do that, and what would work, and what
7 the PUC would approve in those new contracts. We think
8 that's absolutely essential. We would welcome your input
9 and value some involvement on the PUC's part on that. It's
10 in the action plan right now as an item, but I would suggest
11 that, you know, the 2012 deadline is actually a deadline
12 that's must too late. We have plants today that are closing
13 down for economic reasons and we simply can't wait for 2012
14 to resolve this issue. And something that needs to be dealt
15 with today, when two plants have closed down, or at least
16 furloughed in the northern part of the state, and when a
17 biomass plant closes down or furloughs, workers go home.
18 So, two plants meant 30 workers, and then, when you talk
19 about the fuel distribution infrastructure, that's even more
20 people that are now out of a job. So, when you look at this
21 industry, it's an industry that's here today and it's
22 putting people to work. In fact, this industry employees
23 750 people directly at the plants. And back in the '90s
24 when we would meet with other renewable industries and talk
25 about what it meant to run these facilities, and we would

1 get laughed at for how many people it takes to run it.
2 Well, let me tell you today, these plants are keeping rural
3 communities employed. And every time a new one goes up,
4 that's more jobs, and it's not just the jobs at the plants,
5 it's the dedicated indirect, it's the fuel suppliers that
6 would not be there if it weren't for those facilities.
7 Those are the folks who are transporting the wood, those are
8 the folks that are collecting the wood, and those are the
9 folks that are getting to work because of that. So, I would
10 say that our number one priority, and you've really
11 identified this, but I would actually talk about speeding it
12 up a bit, is the work on the contracts. One of the other
13 things that you have in the Action Plan, and I absolutely
14 agree -- and I'm not a big fan of monitoring, saying we're
15 going to monitor -- and that's a good thing. Well, in fact,
16 it actually has been of assistance because one of the things
17 you have in there is monitor what's going on at the Federal
18 level. And what we discovered this year is, oh, my
19 goodness, EPA did something this year that threw everyone
20 for a loop, they got some information wrong and they put out
21 some proposed regulations that would really damage the
22 Biomass industry, and in fact would probably just shut it
23 down, and it was because of the activities of the working
24 group that we were able to kind of pull everyone together
25 fairly quickly and develop comments and connect with EPA on

1 what they got wrong and how we can help them fix that. So,
2 heck, go monitor, please, because that monitoring turned
3 into action for us. And while there was nothing in the plan
4 about, you know, turning it around and doing that, it
5 actually was of great value and I thank you on behalf of our
6 industry for involving yourselves in that. And the
7 comments, by the way, were very thoughtful and involved.
8 And I know that they went very noticed by EPA. But the
9 Federal stuff, too, involves -- you know, the Federal
10 Production Tax Credit, that's essential that get extended,
11 we understand that's probably in this tax package for now,
12 who knows what's going to happen? But getting movement at
13 the Federal level and being more active there actually would
14 be of value to us. And then you've got the Biomass Crop
15 Assistance Program, is another piece at the Federal level
16 that I know you're all very aware of, and it's incredibly
17 important to our industry and moving forward. But, you
18 know, there are a couple of items, and I think we need to
19 talk a little bit about what Cal Recycle is doing, but what
20 is not in the Action Plan for us is actually recognizing the
21 industry's carbon benefits to the State. We think there
22 needs to be actually official State policy that recognizes
23 that, there needs to be protocols, and those types of things
24 are what will drive this industry. We have out-of-state
25 companies coming in to develop plants, to develop projects

1 here, and they're coming here because of these policies,
2 they're coming here because of AB 32, they're coming here
3 because of the RPS, they're coming here because of the
4 landfill diversion, they're coming here because of the ban
5 on open field burning. And when you solidify these things
6 and make sure there's official state policy, protocols,
7 remunerating the benefits of this industry that just brings
8 the money here. We don't have a financing problem, we don't
9 have a permitting problem, it's just solidifying the
10 policies of the state, which we think are very important.
11 Most of what I've talked about has to do, really, with the
12 economics of the facilities and those are all what we would
13 call kind of Tier 1 stuff. But the work that the agencies
14 are doing and that other stakeholders are working on in
15 terms of the fuel supply are just as important, and we would
16 encourage the work to continue on that. In fact, you may
17 want to consider regional partnerships to talk about
18 increasing fuel collection and making improvements. You
19 know, for example, orchard pruning equipment needs to be
20 developed to get into the orchards and deal with the
21 prunings. It turns out the equipment we have right now
22 actually doesn't do that very well, and if there were maybe
23 some working groups set aside to identify certain types of
24 technologies like that, and with the Fire Safe Councils, the
25 Fire Zone collection areas might be another great idea. So,

1 we would like to work more closely with you on that, and we
2 call those Tier 2 issues, but they're just as important.
3 Anyway, I think I hit everything I wanted to hit, and I just
4 wanted to thank you for the efforts that you're putting
5 forward here. I think it behooves us all to continue to
6 talk to the new Administration and this new Legislature and
7 encourage them to continue following the work of this group,
8 and to help this group along in implementing its policies
9 and procedures. And so I thank you very much for your time.

10 MS. IKL: I wanted to thank Jim Boyd for prodding
11 our agency. We actually submitted a revision to change the
12 date to the end of 2011, and as I'm sure you know that, you
13 know, we're working very actively on the QF settlements and
14 I also - I have the perception that there is a lot of
15 movement in terms of the actual negotiations that are going
16 on with our utilities in terms of the specific facilities,
17 so I appreciate the comment and I appreciate that I have a
18 good answer for you in that respect.

19 MS. MALINOWSKI-BALL: Yeah, we'll probably want to
20 come in and just talk a little bit. I think it would be
21 good to have a few plants come in and talk directly with
22 you, and actually give you just kind of a perspective of
23 what the industry is looking like today, and just kind of
24 get your own -

25 MS. IKL: I'd be happy to do that in the New Year.

1 MS. MALINOWSKI-BALL: No, tomorrow!

2 MR. O'NEILL: Any other comments or questions from
3 the working group? Michael Theroux, JDMT, Inc.

4 MR. THEROUX: Good afternoon. Kudos first on a more
5 focused, better grounded Working Plan. It focused more upon
6 the actualities that we're faced with right now, grounded in
7 some of the more difficult challenges that we face. I'd
8 like to make some very specific suggestions for
9 implementation. Always, there's the need to drill down on
10 the goals and objectives we have to try to find specific
11 things to do. These are by no means the highest priority,
12 perhaps, or in any order of priority, but they are specific,
13 things that we can physically get our hands around and do,
14 that meet each of the five objectives that are listed in the
15 plan. I'll be brief, I will be filing written comments in
16 detail by the timeline. So, allow me to go right down the
17 list. On number one, Increased Security in Existing Plants,
18 I agree with Julee on her points. I think that we have an
19 interesting analogy with our coal plants. I think that
20 there is an opportunity to look at our bioenergy plants and
21 assist them in what would amount to co-firing. Right now,
22 they have direct combustion technologies and they are
23 becoming more and more restricted in terms of the fuels that
24 they can utilize. The Action Plan is indicating the need to
25 assess source of fuels in feedstocks, I think it's

1 appropriate to do so for the existing biomass plants, both
2 on the feedstock that are available and the technologies
3 that might be able to co-fire those alternative feedstocks
4 at those sites. That will take very specific work on
5 characterization, we have touched on that in some of the
6 other areas of the plan, coordination between the Air Boards
7 and the Energy Commission makes a lot of sense on that.
8 Julee also mentioned the supply chain needs. Supply chains
9 are not a direct line from a thing to a thing, they are a
10 sequenced series of steps, and unfortunately we need to work
11 on establishing that supply chain. I believe, after my
12 assessments, that we can do so with a multi-tech, multi-
13 staged, process. In other words, along the path, from the
14 sources to the major bioenergy facilities that we have, are
15 communities that need assistance, that can act as
16 intermediary hubs. Some of the material can be utilized in
17 those communities for combined heat and power, and feed a
18 little bit off of the material they're taking, and help roll
19 that material down the hill. That modeling is something
20 that the California biomass collaborative has bitten into
21 and can be supported by the Energy Commission, so a modeling
22 effort to look at supply chain assessment, and the
23 heuristics of that assessment, I think, is a very worthy
24 place for the Energy Commission to place its support behind
25 the California Biomass Collaborative and the research that

1 is going on right now. Construct new Plans - this ties
2 right to the first statements that I've made, that indeed we
3 are able now to look at multiple scales and multiple clean
4 technology frameworks, whether they be strict biomass
5 combustion for combined heat and power and cooling, or
6 whether we're producing fuels or co-products in hydrogen,
7 biochar, etc. Those new tools, which are relatively new,
8 need new sources of feedstock identified and those become
9 the ability to take that step for the new fuels and the new
10 CTs, allow us to make that multiple stepped facility that
11 will include construction of new plants, not just great big
12 plants in direct competition with our existing bioenergy
13 industries, but new plants that, indeed, can support the
14 supply chain and help our existing industry stay alive.
15 Certainly, we have the ability and the knowledge and the
16 tools now to look at stand-alone's, but inside of the
17 battery and inside of the municipal certainly gives us more
18 opportunity to look at the alternative fuels that we have to
19 construct new plants. I would direct the Commission's
20 interest, the working group's attention, to the Department
21 of Energy's program of Clean Energy Application Centers, or
22 RACs, Regional Application Centers. At the moment,
23 California has a RAC in Berkeley and one at Irvine. They
24 are focused on the academic things that universities do. We
25 need a hands-on. We need an industrially focused, clean

1 energy application center program, and there are ways that
2 we can pull together with the DOE to implement a program of
3 that nature. Number Three, Integrate Bioenergy Facilities,
4 Supply Chains, and Diversify Fuels, obviously I'm kind of on
5 the same theme as we go through here, but if we think of a
6 hub and spoke model toward our larger facilities in the
7 middle, and we think of a multi-tech, multi-fueled process
8 of moving things toward those centers, we have a lot of
9 modeling to do. Once again, the Collaborative has a
10 baseline developed on the biofuels in California, in all
11 sectors -- urban, agriculture, and forest -- a very amazing
12 database that is there and unfortunately not enough support
13 for that database to really keep it running, keep it new,
14 and keep the analysis of that material coming back out to
15 the public. And I would ask very strongly that that be a
16 step that the working group pursues, to take that wonderful
17 database up to 2008, bring it current, and make the analyses
18 that can come from that material fresh and available to the
19 public. A second perspective on the ability to integrate
20 like this has been to work with the characterization of the
21 feedstock. Now, this was touched upon earlier. Indeed,
22 when we look at sourcing feedstock in new areas, the
23 question comes down not so much of where it is, that's
24 taking care of perhaps one side of the picture, the other is
25 what is it. We need to focus upon the chemical constituents

1 and variability of those kinds of materials, be they the
2 residuals coming off of the materials recovery facilities,
3 or the potential contaminants that can enter into our
4 agricultural sectors, or, for that matter, the materials
5 that might be cleared from the wild land interface, of
6 course interface, and the garbage that comes off of the
7 roadsides in our rural communities. We need to understand
8 the variability of that, what that material is, help support
9 the characterization of it so that everybody that comes down
10 the pike and tries to take on a new feedstock doesn't have
11 to do that on their own back. Number four,
12 Commercialization of the Next Generation of CTs -- I'm very
13 pleased with the emphasis given on the ability to handle
14 materials coming out of the municipal waste stream. But we
15 don't have to do that alone. Certainly, there are a number
16 of programs for demonstration and I ask that the working
17 group focus upon what is going on in the state right now for
18 demonstration projects, and help support those. But I
19 think, once again, we need to lean heavily into the Feds.
20 The EPA has an Environmental Technologies Verification
21 program, ETV. There are a number of centers similar to the
22 RACs, but this time focused upon verification of
23 technologies, and they bring to the fore the same cry that
24 we always hear, "Show me the data, show me the data, where
25 are the data for these technologies that you say are so

1 clean?" ETV set up a Materials Management and Remediation
2 Center in Florida that would be the sector of that many
3 centered program, that would focus upon characterization of
4 the feedstocks and the nature of the conversion of those
5 technologies. However, they have not done so, they are
6 focused on other things that are in their mandate. I would
7 ask that we consider and drive toward a federal planting of
8 a Northern California Materials Management Remediation
9 Center, not at one of the universities, perhaps at the
10 McClellan campus, someplace that is industrially focused and
11 tightly controlled and managed, a blanket around which we
12 can test these technologies and certify them with the third-
13 party validation that the EPA ETV Program can accomplish in
14 conjunction with working with our State. Number five,
15 Remove the Statutory Barriers, what is this, six times that
16 we've tried to hammer that? There is an approach called a
17 point of law referral that takes an element of an existing
18 law and says, "No, wait a minute, we already have laws that
19 do that." Most of the problems that we have, as
20 Commissioner Boyd pointed out, are one of interpretation.
21 But there are those areas to where it is blatantly obvious
22 that there are already laws on the books that does the
23 things that we want it to do, and it provides the oversight
24 that is necessary. In those cases in law, a point of law
25 challenge can be made, then you go into the law and say,

1 "Oh, by the way, yeah, if you get to this point, you need to
2 understand what air emissions are for these things, refer
3 over here, that's where we have that law." The last item
4 I'd like to add, and it's number six, to the list of five
5 objectives, and that would indeed be Coordinating Better
6 with the Federal Government. Julee mentioned the BCT (phon)
7 Program and the way the working groups pull together for the
8 MACT with the EPA, the transparency of the ability to take
9 that information called "Hey Rube!" and get comments back
10 in, and bring them closer into the EPA's working mechanisms,
11 is critical to what we're doing, and I believe, indeed, that
12 if we take the step of implementing an Industrial Regional
13 Application Center, focused on these kinds of conversion,
14 here in Northern California, it will be one more step that
15 we can make toward that kind of close relationship that we
16 need. And thank you very much. Any questions?

17 MR. O'NEILL: Thank you, Michael. Oh, one more
18 reminder, if anybody speaks from the podium, please state
19 your name. Gregory Stangl, Phoenix Energy.

20 MR. STANGL: Thank you very much. Gregory Stangl,
21 Phoenix Energy. First, I just have to call attention to the
22 Board, and particularly to Dr. Levinson and his organization
23 without whom, and without whose support, our 500 kilowatt
24 biomass gas-fired, the first ever in California to receive
25 an air permit, would not exist. That plant came on line in

1 October, it still awaits its PG&E interconnection, with is
2 part of what I would like to discuss with you today. But
3 nonetheless, the support of this Board has, in the lone
4 three-year saga it has taken to get to this point, I
5 believe, first after we moved back to the United States, I
6 came to this meeting three years ago and it's taken that
7 long to get one done. The first plant I ever built in
8 Europe took six months, start to finish. I do recognize the
9 job that faces you is really challenging, especially when I
10 heard the representative from the large biomass plants
11 speak. We are distributed generation, to us, small is
12 beautiful, we go on-site with fuel, the biggest thing we do
13 is one megawatt. We have another one megawatt that just got
14 its permits in San Joaquin Valley. Our issues are really
15 remarkably different. Price has nothing to do with it, we
16 can make plenty of money with prices right where they are,
17 right now, today. It costs us about, all in, \$.5 plus the
18 cost of capital to make a kilowatt. You know, right now you
19 can sell that for ten point nine cents, and I understand, as
20 a result, the recent FERC CPUC tiff, that that no price we
21 will no longer be burdened with transmission. The problem
22 is interconnection, and the utilities, I liken their problem
23 sort of to deregulation and the Telcos, they're forced to
24 let us use their wires, they sure as heck are not forced to
25 cooperate. In the time that we have done our tiny little

1 500 kilowatt gas-fire, our written estimates from the
2 utility have ranged from \$109,000 for interconnect, \$133,000
3 to interconnect, \$165,000 to interconnect, and \$1.1 million
4 to interconnect. It took the involvement of out-of-state
5 Senators, we had to go out-of-state for the support, to make
6 it happen and to actually see this project through to
7 completion. And again, I have to say, we would not be here
8 were it not for the involvement of the Integrated Waste
9 Management Board, now Cal Recycle. And I would say, as a
10 result of that, we now employ nine people here, all in the
11 State of California, and in the Central Valley, one of its
12 most economically disadvantaged areas. We have our second
13 air quality permit also in the San Joaquin Valley Air
14 Pollution Control District, and just got a lease at the
15 Sonoma Landfill. So, again, our price is not the problem,
16 the price is interconnection, and I think we need to think
17 flexively (sic). Bashing the utilities does not win the
18 day, I think they're very used to being bashed, they have
19 very broad shoulders, and they can take it. I think part of
20 their problem is that they are overwhelmed with the number
21 of projects that are out there, and they simply have been
22 unable, or have chosen not to staff the departments.
23 There's a very interesting meeting yesterday conducted by
24 PG&E, where they went into their efforts to reform and
25 expedite their process. I think a little out-of-the-box

1 thinking might be, in some ways, helping them with that
2 struggle. The reason that has particular relevance for
3 bioenergy is because, largely, our projects are in rural
4 areas; even the ones that are not, from my point of view,
5 tend to be at landfills. Landfills are wonderful places
6 where you have lots of biomass already chipped up, perfect
7 for use, clean, and sitting there in piles ready to be
8 either trucked to Woodland to be burnt, or buried in a
9 landfill, as in our case, in Merced. As far as the efforts
10 here with funding go, I think sex appeal is a problem, and
11 this is very much my prejudices, we are biomass
12 gasification, we did this with absolutely no grants. Waste
13 Management just got a \$1.9 million grant from the Energy
14 Commission to do a gas-fire in San Jose because they are
15 going to distill it into a liquid fuel, it's sort of similar
16 to Ethanol. We find all of the money follows the sex
17 appeal, not necessarily the things that are most relevant as
18 far as practical applications. There are lots of other
19 Phoenix Energies out there, we've seen them, and I think
20 that's a wonderful wonderful thing. We are predominantly
21 focused in Northern California and have maybe 20 projects in
22 development, you know, one built and two with permits now.
23 I mean, I think that's really showing that, you know, if we
24 can survive, this is really moving forward, we are really at
25 a tipping point. The carbon, one of the other speakers had

1 mentioned that, as well, I think that would be really really
2 neat, the only carbon protocols exist are for the
3 technologies which are absolutely not even remotely close to
4 commercial application, they are based on things that work
5 in a laboratory. There is no carbon protocol for
6 gasification from the -- it used to be the California
7 Climate Initiative, but it's called something else now.
8 When it comes to permitting, I know people love to beat up
9 on the San Joaquin Valley Air Pollution Control District,
10 that was actually the fastest permit we got, and we've
11 gotten two of them from the same air district. The longest
12 one we got was between agencies in this room. So, there are
13 definitely permitting hurdles to overcome, and that gets
14 back to the regulations that I know a number of other
15 speakers have already touched upon. For us, the conflict
16 was, you know, a) is biomass waste? And that, you know, was
17 a nine-month ping pong ball between varying agencies that
18 took conference calls with lawyers to decide whether biomass
19 should be regulated by the Waste Board, which, you know,
20 when your joint venture partner is a almond huller, the last
21 thing on earth they want to hear is that they have to get a
22 license, a waste license, when they make a food product,
23 that's pretty much a deal killer and, in our case, was a
24 deal killer. Oh, and the other thing I would just highlight
25 briefly is that gasification still cannot be done following

1 the laws of the physical universe we occupy under California
2 statute. I will tell them whatever they want to hear. It
3 simply cannot be done, and I'm the finance guy, I'm really
4 not the engineer, I know just enough to know that, if you
5 follow the letter of the law, it cannot be done. And when,
6 as an entrepreneur, you're asked to sign the mortgage to
7 your house over as security for your loan, which we did,
8 it's kind of painful to know that someone could come back
9 and say, "But wait a minute, you can't do this." That, I
10 think, will eventually become an impediment. Oh, and I love
11 love love -- I wrote it down three times -- the one-stop-
12 shop for permitting. Part of the reason why it took us
13 three years is because there were agencies we didn't even
14 know existed. I confess, when I came back after doing this
15 for 10 years in Europe, I didn't know what a Conditional Use
16 Permit was, I wasn't aware that, in America, it's not enough
17 to have property, you must also ask for permission to do
18 what you want to do on your property. Having one place that
19 could go and literally not have to write "Phoenix Energy" 30
20 times on 30 different forms just sounds like a brilliant
21 brilliant idea, and I commend the team for putting that
22 together. So, thank you.

23 MS. IKL: Judith Iklé from the PUC. I just wanted
24 to acknowledge that the PUC is also -- I mean, I look at the
25 whole conversation just as an energy person is basically the

1 Power Purchase Agreement, the permitting process, and
2 interconnections. And I think, in terms of the
3 interconnection story, we are seeing -- I have a chart which
4 maybe some of you can even see from there, this is basically
5 interconnection requests, and it goes from about 10 to 200
6 new requests over the last two years, so I think we as the
7 regulator are very aware that this is a growing problem and
8 the utilities are, you know, I think being sensitized that
9 people are also paying attention to this, as well. So, I
10 definitely acknowledge the comments on interconnection, as
11 well as some of your others, so...

12 MS. HOWARD: ...a short microphone to the Air
13 Resources Board. Certainly, the utilities are not the only
14 ones that come to meetings with their broad shoulders, I've
15 put two extra pairs of shoulder pads in today before I came
16 down here. But I do want to thank the last speaker very much
17 for the compliments to the San Joaquin Valley Air District,
18 they've been part of our group, they are not our agency,
19 however, one of the things that we've recommended to
20 everyone who even has the earliest idea related to biomass
21 is to go have a chat with your district before you choose
22 your technology. And I think the more folks do that, the
23 more -- the easier they can get through the process, and the
24 districts can even point them in the direction of
25 technologies that have already been source tested or, in the

1 case of distributed generation, have already met the state
2 requirement for distributed generation which will exempt
3 them from permitting. Thank you.

4 MR. O'NEILL: Any other comments or questions from
5 the Board? Okay, we've got Brett Storey, Placer County.

6 MR. STOREY: Thank you. My name is Brett Storey
7 from Placer County, and one of my jobs there is a Biomass
8 Program Manager. And I want to thank you for hearing all of
9 our input today. I think the plan is very well thought out,
10 as a matter of fact, I was sitting there thinking, when I
11 first started in this industry is when you put your first
12 plan together and that allowed me to build a strategic plan
13 for our county. And that also reminds me, I've got to
14 update my strategic plan since you're updating yours, so
15 thank you for the work. I wanted to point out that -- and I
16 do work with our Pollution Control District, they actually
17 are part of our team, on one hand, and then there's a
18 secluded part that is the review process through our
19 program. Jointly, we will be giving you written comments,
20 but I wanted to bring to your attention today one of the
21 action items, as a matter of fact, for the ARB, which is 1.4
22 AB 318, the Wildfire Emissions Offset Credit for PM, we
23 think it is a good start, it's something that needs to be
24 done, however, it may not be ready for use today, but I
25 think you'll work towards a solution that will help us all.

1 But I think what we would like to add and what we'll be
2 telling you is that our Air Pollution Control District put
3 forth a Biomass for Energy protocol for offset credits of
4 both PM and greenhouse gases, and the protocol was peer
5 reviewed by many staff from your organizations and it's at
6 ARB, and I know you're working towards creating a solution
7 for us to move forward with it. And the idea for that one,
8 quite simply, is particularly for our area, we have a lot
9 that is burned in open piles by the Forest Service and
10 others, and we have a lot of problems associated with that
11 air quality-wise, and so we're proposing that we, as we take
12 those off and do not burn them, we utilize that offset as a
13 part of whatever needs to be done in the area. More
14 importantly to us, it lowers the air pollution levels in our
15 area. We are attempting to build a small biomass facility
16 using complete forest waste in Lake Tahoe, and I know I
17 picked an easy place to do it, but it's a small facility,
18 and while our technology ultimately probably won't require
19 the offsets to move forward with the project, we're doing it
20 anyway to show the value of it, but there are other projects
21 around that are larger, that are going to need those offsets
22 to make the economics feasible through their entire process.
23 And so we urge you to take a look at that and we will, as I
24 said, be submitting it. That should be an item also that
25 this Bioenergy Plan takes a look at, is something that can

1 be put, and we believe that can be put on the books now. It
2 doesn't apply to everyone because not everyone has the same
3 situation, but, again, the more we can put tools in the
4 toolbox to help businesses bring new technologies to help
5 reach the goals of now at 20 percent, then 40, then 75
6 percent, we're going to need everything we can get. And I
7 also wanted to say we're also looking at a second facility,
8 thanks to the Energy Commission last week, or the week
9 before, we are a small partner in a new company trying to
10 bring new technology into California to look at the biomass
11 waste to fuel side, and we're very happy to be involved with
12 that and encouraged by the efforts that you have put forth
13 in this new Bioenergy Plan, and I think it will help us all
14 shape the future of this. So, thank you very much.

15 MR. O'NEILL: Thank you. Nick Lapis, Californians
16 Against Waste.

17 MR. LAPIS: Good afternoon. My name is Nick Lapis,
18 I'm with the environmental group, Californians Against
19 Waste. We're a 33-year-old organization. We've sort of
20 been the state's leader on waste reduction recycling policy.
21 I'm mostly up here to talk about anaerobic digestion, but
22 since I'm up here, I can't not mention the fact that we have
23 a longstanding concern about the statements in the Bioenergy
24 Action Plan, this one and previous versions, that say we
25 need to remove the definition of gasification. Both from a

1 renewable energy perspective and from a diversion
2 perspective, we've had policy concerns with that, I don't
3 need to get into it, I know we've all heard our side and
4 each other's side, and it really doesn't affect the
5 situation we're in today. So I just wanted to add that for
6 the record. I do have specific comments on the anaerobic
7 digestion projects. The first one is regarding the Low
8 Carbon Fuel Standard. Right now, the task is written that
9 Cal Recycle will work to incorporate the Low Carbon Fuel
10 Standard, or anaerobic digestion, into the ARB's Low Carbon
11 Fuel Standard. We believe that this type of venue where the
12 Air Resources Board is sitting at the exact same table, I
13 think it is sort of a missed opportunity to say that the
14 task is for Cal Recycle to do that. Really, the task should
15 be for Kitty to do that, not to pick on you, Kitty. But,
16 really, if we can't use this kind of venue, we're all
17 sitting at the same table, to say this is what needs to get
18 done, then I don't know when we can, and it really shouldn't
19 be Howard's job as part of this action item to work on
20 getting the anaerobic digestion pathway into the Low Carbon
21 Fuel Standard. And it's not particularly controversial as
22 far as I know, it's not, you know, I mean, we have fuel
23 pathways for all fuels, good or bad, so it's not like this
24 is some sort of new incentive, we just need a quantification
25 in there so that digester companies have a certainty about

1 what their gas is worth as a fuel. On a similar note, we
2 have an item for Cal Recycle to participate in the Climate
3 Action Reserve protocol development process for anaerobic
4 digestion. That's a great item, and they did that and in
5 the past year the protocol was adopted and is now an adopted
6 protocol, so the new task is probably not to participate in
7 the development of the protocol, but to get that protocol
8 incorporated into ARB's cap-in-trade regulation. Currently,
9 there are only four protocols that are proposed to be
10 adopted as part of cap-in-trade, the anaerobic digestion and
11 composting protocol should be added to that list. Again,
12 this might be a task for the ARB, but it should be added
13 somewhere on this document. Thank you.

14 MS. HOWARD: Kitty Howard again with the Air
15 Resources Board. Nick, thank you for that comment.
16 Actually, that suggestion was buried in a list, we missed
17 that, and that is actually on our list of pathways to
18 develop for the Low Carbon Fuel Standard, so I'll see if I
19 can get back to you on a date for when it will be ready, I
20 know we're assembling resources right now to look at that,
21 so --

22 MR. LAPIS: Yeah, and that's more or less the
23 response we've gotten since the adoption of the Low Carbon
24 Fuel Standard, and to the point where every couple of months
25 we send an e-mail to an unnamed staffer at the Air Resources

1 Board and say, "Hey, how about that organic waste digestion
2 protocol?" And we usually either get no response, or the
3 response we get is, "Oh, yeah, we adopted the dairy digester
4 protocol." What? That's not what we're asking. So, you
5 know, it's something that seems to keep falling on the back
6 burner, and I know that we have people trying to develop
7 projects around the state right now that would like that
8 information.

9 MS. HOWARD: I got the question and I'll get to the
10 answer.

11 MR. LEVINSON: And I'd like to make a comment.
12 Howard Levinson. I want to thank Nick for bringing that up.
13 Under the Scoping Plan, AB 32 Scoping Plan, Cal Recycle is
14 actually charged with working ARB to develop an AD pathway
15 in the Low Carbon Fuel Standard, so we have been having
16 discussions with ARB staff, some of the issues are related
17 to data availability, and we're trying to overcome some of
18 that. So, I will follow-up with Kitty and try to get that
19 moving faster.

20 MR. O'NEILL: George Larson, Waste Management, Inc.

21 MR. LARSON: Uh, Commissioner Boyd, distinguished
22 members of the Working Group, my name is George Larson, I'm
23 here today representing Waste Management. Chuck White would
24 normally be here, but he's out of state doing business. I
25 want to applaud the work of the contributors to the 2011

1 version of the Bioenergy Action Plan. I'm here to commend
2 and support specific recommendations of that report and to
3 highlight a few issues that are paramount interest to Waste
4 Management and others involved in increasing diversion of
5 biomass, particularly from the municipal waste stream.
6 Waste Management supports the actions to speed the
7 development and deployment of anaerobic digestion, not just
8 in the sense of planning documents, but the specific
9 actions, for example, undertaken by Cal Recycle to develop a
10 program EIR is a major step to assist the development of
11 these kinds of projects. We applaud the establishment of a
12 clear definition of landfill gas processed as biomethane, as
13 a qualified biogas, which is included on page 19 of the
14 report. And we support the proposal to revisit the issue of
15 injection of biomethane derived from landfill gas into the
16 natural gas pipeline. And this, I would note in the report
17 and the summary of actions to be taken in the report, is
18 included in the Energy Commission, the Air Board, Cal
19 Recycle, and CPUC, so we're hoping and encouraged that that
20 means it's going to be a collaborative and cooperative
21 effort to move that along expeditiously. We also commend
22 the promoting of co-location of bioenergy and biofuel
23 facilities and other energy projects, manufacturing
24 facilities, and particularly waste disposal facilities, and
25 I think waste management can speak proudly as evidenced by

1 the successful project of landfill gas biomethane recovery
2 at the Altamont Landfill, which produces 13,000 gallons of
3 LNG gas every day. There are three agencies represented by
4 this panel, who contributed to the success of that program.
5 Waste Management appreciates that. The following issues are
6 of paramount interest to Waste Management and we encourage
7 timely action following the adoption of the 2011 plan, one
8 is to support regulatory clarity that municipal waste
9 derived fuels can be considered renewables. I've heard this
10 was a first priority and imminent action item in the first
11 quarter of 2011, and as noted by Mr. O'Neill when he gave
12 his overview, and we fully support that. We also support
13 that ensuring the biogenic fraction of the municipal waste
14 stream used as energy or fuel be deemed to be carbon neutral
15 and eligible for inclusion under the separate document, the
16 Renewables Portfolio Standard Eligibility Guidebook. While
17 we support all these actions that have been taken thus far,
18 and we understand there is really no opportunity to make
19 additions to, or changes to, this Bioenergy Action Plan for
20 2011, we want to encourage the early consideration of the
21 issues that I've raised here, and Waste Management is fully
22 prepared and anxious to participate in the discussions to
23 the extent of our input. We have commented on the current
24 plan in a letter dated September 10th, and will continue to
25 participate and share the experience that we have gained

1 through the planning and implementation of bioenergy and
2 biofuel projects at Waste Management facilities. I take
3 special joy, if that's the right word, in Commissioner
4 Boyd's statement in his opening comments that he's going to
5 push real hard to develop processes and procedures in the
6 upcoming discussions that will enable the reduction of the
7 amount of organics that are disposed in California towards
8 the creation of new businesses, new jobs, and new energies
9 and fuel. Thank you.

10 VICE CHAIR BOYD: Thank you, and let me say, I may
11 have misunderstood you, but let me just say it's not too
12 late to influence the 2011 plan, we're discussing a draft
13 here today with the idea of receiving inputs to make
14 corrections to that draft, if deemed advisable in order to
15 come forward with a final plan. So, if you've got -- I
16 mean, you've said some things today, and if you want to
17 submit anything to us in writing, why, it will definitely be
18 taken into account before we finalize this plan.

19 MR. LARSON: Thank you for that point of
20 clarification. They will be reiterated in written comments,
21 again. Thank you.

22 MR. MENKE: Just a comment. The Action Plan is
23 going to set down a list of actions that the State agencies
24 will be taking, but those will just lead to other actions
25 that can be combined efforts of State agencies, and

1 industry, and academia, and the like. So, in the upcoming
2 years while this plan is being implemented, I think there
3 will be a lot more issue specific plans that are formulated,
4 that will just tie into this particular plan, so there will
5 be a lot of opportunities in the future to proceed in ways
6 to increase our production of biogas, bioenergy.

7 MR. O'NEILL: Thank you, John. Is there any other
8 comments? I have Tim Tutt from SMUD.

9 MR. TUTT: Good afternoon. Thank you. My name is
10 Tim Tutt and I represent Sacramento Municipal Utility
11 District, and SMUD is a utility that has already this year
12 20 percent of its power from renewable sources, and 40
13 percent of that is from biomass, so we're very interested in
14 biomass as a resource, and the Bioenergy Action Plan. Julee
15 Malinowski-Ball talked to you about the recent EPA work, or
16 occurrences surrounding biomass and biogas. I wanted to
17 raise to your attention something that is happening closer
18 to home because I didn't see it in my skimming through the
19 Bioenergy Action Plan, and that is, in two days' time, the
20 adoption of the California Cap-in-Trade Regulation. Now,
21 there is still opportunity after that adoption to influence
22 those regulations, and I wanted to bring up four points,
23 which I think are pertinent to your efforts and to the
24 State's interest in biogas. First, generally, bioenergy has
25 been treated as the compliance-free generation in cap-in-

1 trade or carbon circles. They do produce CO₂ emissions, but
2 it's biogenic and it's treated as not adding to a compliance
3 obligation. Well, the proposed regulations for the cap-in-
4 trade recognize this in most instances for biomass,
5 suggesting that combustion emissions from biomass derived
6 fuels are exempt from a compliance obligation. So, they
7 have a little parenthetical that says "except biogas from
8 digesters." And we'd like to understand better why they're
9 doing that. We understand that, in part, it may be because
10 they are also adopting a protocol for providing offsets from
11 digesters, from dairy digesters, in fact. And that may be
12 one reason to think about that, but we think that those are
13 separate GHG attributes, and there still should be an
14 exemption from biogas as a combustion-related GHG compliance
15 obligation. Second, all of these emission reductions and
16 claims and such are going to be verified, of course, under
17 cap-in-trade protocols, and I wanted to raise the issue that
18 the verification protocols for biomethane, biogas that's
19 injected into a pipeline system and used in, say, our power
20 plants at SMUD, suffer from the lack of a comprehensive
21 tracking system like exists for renewable energy tracking
22 RECs in WREGIS. As a result, there's a consequence; the
23 requirements for verifying biomethane would require the
24 verifiers to go all the way down the contract path and
25 verify contracts with other entities that the contractor's

1 contractor has included, to make sure that biomethane is not
2 being sold twice. It's a lot easier with RECs, in some kind
3 of system like that, I think it's right to have that for
4 biomethane, as well. One aspect of those verification
5 protocols, as well, is that it suggests that the
6 verification team shall determine that no entity has applied
7 for, or received credit for the use of biomass derived fuel
8 in offsets, credits, or any other credit for greenhouse gas
9 reductions. Well, this conflates the kind of displacement
10 effect of biomethane, displacing fossil fuel's use for
11 energy generation, with the methane destruction effect that
12 landfill gas and other digesters have, which are
13 traditionally and longstanding been thought of as separate
14 value streams for bioenergy. And now they're suggesting in
15 this verification protocol that, if you take an offset
16 somewhere, or a credit somewhere, with a methane
17 destruction, you should not be able to get credit for the
18 biomethane use in California. We think that's wrong. And
19 then, finally, the last thing is the treatment of biomass
20 from out-of-state. The cap-in-trade regulations are not
21 going to be at present using RECs as a way of demonstrating
22 that you're bringing in renewable energy. Or, even farming
23 and trading energy and bringing it in, firming and shaping.
24 We have been told that, for biomass and geothermal, they are
25 going to require direct delivery of energy into California.

1 That's okay in many instances, but if there's biomass that
2 we're procuring from, say, up in Washington State, and it
3 has no direct transmission path, or clear transmission path
4 down to California, we would substitute other energy as
5 we're procuring that biomass and bringing it down. It
6 sounds like that may not be allowed and that biomass would
7 then no longer be credited in California under the cap-in-
8 trade regulation. So, I would just encourage you to take --
9 to consider the interaction between bioenergy policy in the
10 state and the cap-in-trade regulations, there is still a lot
11 of time before 2012 to make sure that these policies in cap-
12 in-trade are consistent with the State's bioenergy goals,
13 and I encourage you to look at those. Thank you.

14 MS. HOWARD: Well, since I have about 30 more days
15 of State service, I suppose I should -- this won't be too
16 dangerous of a comment. Yes, this week the cap-in-trade
17 item is going to be heard before the Board, and Mr. Boyd
18 should almost be answering this question, but certainly
19 there is a proposal before the Board, and I recommend that
20 anybody who has got comments on the item, take them either
21 in person or in writing to the Board. And I had suggested
22 earlier to Mr. Kafka that we have at one of our future
23 meetings someone who can bring us news about what the
24 ultimate outcome of the Board hearing this week is. I think
25 it's probably a bit premature, or even immature, for me to

1 comment more than that.

2 MR. KAFKA: This is Steve Kafka. We hope to address
3 some of these issues, at least publicly, and have
4 discussions about cap-in-trade issues, RPS issues, and
5 tailoring rural or greenhouse gas accounting issues at our
6 next California Biomass Forum in early April. So that might
7 be a place where that kind of discussion can go forward.

8 MR. O'NEILL: Are there any other comments from the
9 room?

10 MS. IKLÉ: This is Judith Iklé from the PUC, and I
11 just acknowledge that out-of-state biogas being used for RPS
12 contracts is growing, and also, in our Self-Generation
13 Incentive Program, a lot of the reservations are for
14 directed biogas, not the traditional you're collecting the
15 gas on-site and then using it in a fuel cell on site. So, I
16 think this is an area which isn't going away, and look
17 forward to the outcomes in the other agencies.

18 VICE CHAIR BOYD: This is Jim Boyd. I was going to
19 stay out of this, but I won't. Our AB 32 Committee just met
20 this morning to discuss some issues, but, thank you, Tim, we
21 did not go very far into the arena you mentioned, and you've
22 stimulated some thinking. For those of you who don't know
23 Tim, he used to work here for a long time, so he knows how
24 we operate. Secondly, I would say, but I'm not prepared to
25 go into any discussions here today because we're far from

1 ready, but we've had some discussions of late that would --
2 some people would deem extremely novel with regard to the
3 treatment and the classification of biomethane, let's just
4 say, or biogas, and the green attributes associated with the
5 production of biogas, and where molecules of natural gas, be
6 they renewable natural gas, or real natural gas, ultimately
7 end up. And we're looking at some ways to facilitate the,
8 we hope, things that would facilitate the construction of
9 maybe a lot more facilities who would burn this renewable
10 natural gas on-site, offsetting the need for their current
11 use of what they get in a pipeline, which everybody calls
12 "natural gas," but we know backbone pipelines are carrying
13 more and more renewable natural gas molecules in them. In
14 trying to figure out, you know, a fair allocation and
15 distribution of green attributes such that it might generate
16 some economic activity that would facilitate the
17 construction of more facilities who may burn the materials
18 on-site, and yet transfer the attributes downstream.
19 Anyway, there's lots of potential here, and I think we're
20 going to be talking more and more about it in our internal
21 meeting this morning of our small group, who works on AB 32,
22 and the discussion of cap-in-trade we touched upon a host of
23 issues that need to be considered in more depth in the
24 future as we go on, and Tim, we'll add yours to the list.
25 And I see our renewables staff sitting in the audience here

1 absorbing this, I hope, since I also chair the Renewables
2 Committee, I can't seem to get rid of this stuff. Anyway,
3 thank you.

4 MR. O'NEILL: Okay, our next question comes from the
5 WebEx from Russ Teall. This is to Commissioner Boyd.
6 "After the workshop on streamlining AB 118 grants in
7 November, I'm starting to see a common theme, permitting
8 seems to be a common problem many times because the local
9 Air Districts have no experience with new technologies being
10 proposed. Having access to a shared library of prior
11 permitting applications would be very helpful both to
12 Applicants and the Air Districts."

13 VICE CHAIR BOYD: That's an interesting suggestion
14 that perhaps we could talk about more in the future. The
15 whole issue of permitting has been contentious for the many
16 decades I've worked in California State government, and
17 there have been multiple attempts to streamline permitting,
18 have one-stop shopping, and at least clarify and speed up
19 the delivery of information to folks, and I think that's
20 what we're trying to do. I think that's an interesting
21 idea, I would refer it not only to ourselves, but to the
22 local Air District representatives who may be listening, or
23 who will get some information from this discussion, as
24 something we might consider trying to facilitate. I don't
25 have any additional thoughts at the moment on that, other

1 than that it's an interesting idea. Kitty, I don't want to
2 put you on the spot, but you're closer to this nowadays.

3 MS. HOWARD: Thanks, Jim. It is great idea and many
4 in the audience know that, currently, there is a draft
5 document circulating right now that the Air Resources Board
6 has prepared for Air Districts, Project proponents, and
7 residents of areas around which a facility might be
8 proposed. And these types of projects that we are
9 addressing, it's focused on facilities that are producing
10 vehicles fuels, transportation fuels, but many of the
11 technologies that are being used in those processes would
12 also be used in a variety of biomass facilities. So, again,
13 we tell folks to call, in the case if they need guidance, to
14 call us at the Air Resources Board, our group has been
15 putting out guidance documents on power plants, as well as
16 emerging technologies, for quite some time. And if we
17 believe there's a need to work with the Districts, helping,
18 then we can facilitate those conversations and we have done
19 those before. The document is called *Guidance Document for*
20 *the Siting of Biorefineries in California*. For those of you
21 that want to be put on the mailing list or the distribution
22 list, or the Listserv notice list, give me your card, I'll
23 be sure to put you on that, and then you'll get a copy of
24 the document when it's available. We have also committed to
25 posting on the Web, rather than going through a whole

1 document preparation process time and time again, posting on
2 the Web new emissions information for technologies. So, if
3 you look at this document, you'll see what we've done is
4 pretty much gone throughout the country, and sometimes even
5 throughout the world, to find the lowest emitting equipment
6 for these various technologies, and in the future, as new
7 technologies become market ready, and they've been
8 subjecting to source testing, we will post the results, as
9 well as copies of the permits on our website. So, again,
10 get me your information and I'll be glad to put you on the
11 list to get hooked up into that.

12 MR. LEVINSON: This is Howard Levinson. I'd like to
13 add, especially since Greg brought it up earlier, and thanks
14 for your kind comments, Greg, but in terms of solid waste
15 permitting, a similar issue, similar situation, Cal Recycle
16 has prepared various guidance documents that are available.
17 If you want those, please let me know and we can get those
18 to you. I would say the most important thing is to have
19 early discussions. In the case of the air, with the Air
20 Districts, in the case of solid waste, with the local
21 enforcement agency and our staff, so you can determine where
22 in the regulatory pathways your project is going to fit, and
23 typically we go back and forth because we need to have a
24 good project description, and we usually give a tentative
25 determination partly because we found that six to nine

1 months later, the project has changed, so maybe the
2 permitting requirements have changed. So, sometimes it is
3 back and forth that is necessitated by changes in the
4 project itself. At any rate, it's really important to have
5 early discussions and start, you know, sitting down with us
6 and the local agencies to determine what - do you need a
7 CUP, or is it in a zone in a certain way? Do you need --
8 because the local land use issues are paramount and we can't
9 do anything about those, but then, once you've got that
10 settled, we can work with you on the waste side.

11 MR. O'NEILL: I have a comment from Val Tiangco from
12 SMUD. This comment is related to landfill gas injection.
13 "In order to revisit the restrictions on the injection of
14 biomethane derived from landfill gas or modifying the Hayden
15 Law, there is a need to monitor or perform testing of
16 landfills in California to show if vinyl Chloride is not
17 present, or that the landfill gas can be cleaned by applying
18 quality. For testing of the landfill gas, I suggest the
19 CEC, through the PIER Program, should allocate budget for
20 the testing or to monitor the landfill gas quality in most
21 landfills in California."

22 VICE CHAIR BOYD: I hear the suggestion, we'll take
23 it under consideration. And I'll just comment, here is
24 another former CEC employee that SMUD stole from us. But...

25 MR. O'NEILL: Are there any other questions or

1 comments from the Web?

2 MS. IKLÉ: Judith Iklé from the PUC, and some of the
3 commenters kind of touched on this, but I just wanted to
4 make sure that folks in the room were aware of the Self-
5 Generation Incentive Program at the PUC, which is about \$83
6 million a year, where we carry over funds from year to year.
7 There is right now a lot of the funds are reserved basically
8 by directed biogas projects, but in September of 2010, there
9 was a staff proposal released to modify this Self-Generation
10 Incentive Program per direction of SB 412 Kehoe. And it may
11 modify the program to allow other technologies, as long as
12 these are GHG reducing. And some of you touched on CHP, and
13 this might allow CHP with biogas into this program, and you
14 know, there could be a different incentive level for this
15 sort of project. The incentives are offered to technology
16 that can reduce greenhouse gas emissions, that need
17 incentives from the participant point of view, and that pass
18 or total resource cost from a society point of view, which I
19 think bioenergy does a good job in terms of the societal
20 perspective. So, I just wanted -- I know some people
21 touched on CHP lightly, so just for folks to be aware that
22 there is a staff proposal out, and it's under consideration,
23 basically.

24 VICE CHAIR BOYD: Here comes a volunteer from the
25 audience.

1 MR. SHEARS: Apologies for not having followed the
2 correct -- I just want to respond here because we're a party
3 on that proceeding and the reply comments review Friday -

4 VICE CHAIR BOYD: And you are, John?

5 MR. SHEARS: Sorry for those on the Web, John Shears
6 with the Center for Energy Efficiency and Renewable
7 Technologies (CEERT). And there are two cost analyses that
8 are directed at specific sets of technologies right now on
9 that rulemaking. So, if you're caught short, I would
10 recommend that you follow-up with Judith and the relevant
11 SCHIP stuff on the Self-Generation Incentive Program because
12 time is at a premium on that proceeding right now since
13 reply comments were due on Friday. So, I just wanted to add
14 that important nuance for developers and I'll fill the card
15 out post-facto.

16 VICE CHAIR BOYD: It's all right, John, we know who
17 you are -- and where to find you. I'm told there's no more
18 commenters --

19 MR. O'NEILL: Actually, we just got two more.

20 VICE CHAIR BOYD: Ah, we did recruit two more.
21 Okay, I'll yield my comments.

22 MR. O'NEILL: M. Mark Mayuga, CALMETHA.

23 MR. MAYUGA: Chairman, members of the Committee, I'm
24 an economic development guy and I come from a totally
25 different world than most of the folks here. I represent

1 CALMETHA. CALMETHA stands for California Methanol. We are
2 putting together a project in Northern California which will
3 -- the scope of it is that it will eliminate roughly 40
4 million tons of methane, naturally occurring methane. This
5 is according to UC Davis. We will be using a feedstock
6 other than forest material, the feedstock minimum,
7 conservatively, is about 1.2 million tons per year generated
8 and the end products will be roughly, in the three-year
9 period when we generate this project, when it is finished,
10 about 110 million liters -- gallons, excuse me -- of
11 methanol, about 30 megawatts of electricity, about 140 tons
12 of steam daily. My partners in this project are three very
13 well known companies worldwide, one of them is one of the
14 leading technology developers in biomass, bioenergy,
15 gasification, MSW. The other member is a major construction
16 company worldwide. Just to give you a hint, they built half
17 of Saudi Arabia, so that kind of gives you an idea of what
18 we're dealing with. This project, we started about 21 weeks
19 ago. We have secured commitments from our feedstock. We're
20 even evaluating sites as we speak. The whole impetus for
21 this project was economic development, it was not to reduce
22 carbon emissions, or save the planet, or save the whales, or
23 any of that, it was purely an economic development agenda,
24 and out of this will come, we estimate, between the project
25 itself and the businesses that we plan on bringing to this

1 particular area of Northern California, somewhere between
2 150 and 500 jobs. These will be head of household jobs, not
3 agriculture jobs, or minimum wage jobs, or anything like
4 that. One of the things that I saw, or one of the things to
5 me that was very glaring or was missing in the Action Plan,
6 and it's not meant as a criticism, but more as a suggestion,
7 and that is economic development is a huge elephant in the
8 room, unfortunately it was not mentioned at all in this
9 Action Plan that I could see. I've only been in -- I was in
10 government for only 10 years, I'm a private sector guy for
11 30, and I think it's important that, at the end of the day,
12 it's going to be the private sector and their financing
13 resources that will make what I consider green energy, maybe
14 the new aerospace industry of California. This has that
15 kind of potential, at least from an economic development
16 point of view, it could very well replace the Boeings and
17 the Lockheed's and all of those General Dynamics that we
18 lost years ago, and it could be the new computer age in
19 California, the new aerospace. And I really would strongly
20 suggest that there be some footnote, or chapter, or section
21 in your Action Plan that really addresses the issues of
22 economic development and what private industry and
23 technologies need to develop projects like this because it's
24 going to be these kinds of folks who will eventually fund
25 these projects, develop them, manage them, and eventually

1 maybe even sell them off. I think that, given who my
2 partners are, their credibility is beyond reproach. They
3 have combined years of experience of over 300 years, so they
4 have been around for a long time and they understand what
5 the technology means and what this all could possibly be.
6 They have projects in Europe currently than have been going
7 on now for over 20 years in some cases, with these kinds of
8 technologies, so there is a track record. And I really
9 sincerely hope that you will consider at least an economic
10 development, or address that issue, of how to fund these
11 projects. We can't get government to do it, it's got to be
12 done from the private sector, and there's got to be
13 incentives, there's got to be a willingness and a
14 cooperation. Thank you.

15 VICE CHAIR BOYD: Well, thank you. I appreciate
16 your comments and maybe we fell a little bit asleep at the
17 switch with regard to referencing economic development
18 because I know, when so many other programs, at least in --
19 this is Jim Boyd, by the way, for those on the WeEx - for
20 here at the Energy Commission, economic development is a
21 very critical and key factor for so much of what we do, so
22 many of the programs, particularly our newest program, the
23 118 program that got referenced, we go to great pains to
24 talk about it being so many green technology opportunities,
25 so much economic development opportunity, and what have you,

1 and I'm sure we will take a good look at this report and
2 make sure that we just plan and make sure that we reference
3 that. I'm just kind of curious, I wanted to ask you a
4 question about this methanol. Is this chemical grade
5 methanol? Or transportation --

6 MR. MAYUGA: Methanol, yes.

7 VICE CHAIR BOYD: Chemical grade, okay, thank you.
8 Interesting. Methanol used to be the alcohol of choice in
9 the transportation arena many years ago when I was at the
10 Air Board, and the Energy Commission and Air Board
11 cooperated on an alcohol fuel experimentation, that ethanol
12 won the day in the present. Well, very interesting. It
13 will be interesting to know more about your project
14 eventually. Any other folks want to make a comment? Okay,
15 do you have another, John? Or Garry?

16 MR. O'NEILL: Tamara Rasberry, Semptra Energy.

17 MS. RASBERRY: Good afternoon. Tamara Rasberry
18 representing Semptra Energy Utilities, Socal Gas and San
19 Diego Gas and Electric. And my comments are very very
20 brief. It's actually some questions that we have regarding
21 the Appendix A that was released and so I thought I'd take
22 this opportunity in front of you to ask these questions. We
23 will also be submitting written comments. But what we've
24 seen so far, we're generally pleased with. Southern
25 California Gas Company has and will be and continues to

1 devote resources to the development of bioenergy and
2 biomethane development projects, and in all arenas, every
3 chance I get, I present the same questions, technologies
4 that are available, pending the technologies to reduce the
5 costs, bringing biomethane to the general public in large
6 amounts, injecting it into the pipeline, and also removing
7 regulatory and legislative hurdles, so, very pleased to see
8 this also addressed in the plan. So, my questions are
9 regarding Cal Cycle, the task that you have, 2.4, working
10 with the Energy Commission and the Biomass Collaborative to
11 integrate locations of post-consumer food waste into the
12 web-based database. We would like to know if we could
13 include a pre-consumer waste into this tracking database, in
14 addition to post-consumer waste; and examples are onion
15 skins that are anaerobically digested to produce biogas.
16 This is a waste product from the processing plant and are
17 not a post-consumer waste. Also, Task 3.5, this is also a
18 Cal Cycle task, the funding for advanced biofuels and
19 renewable energy facilities, the task says that the market
20 development zone program may provide just loans to develop
21 biofuels and renewable energy using waste materials diverted
22 from landfills. And so, our question is, with the
23 production of biogas from anaerobic digestion and subsequent
24 conditioning for pipeline injection qualify for this loan
25 program? Sorry, I keep looking up at you, but I need to

1 look at you. Would organic waste such as animal manure and
2 restaurant grease from the grease interceptors be eligible
3 under this low-interest loan program? And for the Air
4 Resources Board, hi Kitty, task 1.3 is the funding for new
5 fuel source testing, and to offset the cost of source
6 testing, the ARB with the Energy Commission will conduct the
7 stakeholder process to identify new biomass feedstocks for
8 conversion technologies and seek funding to support source
9 testing for distributed generators. And so, our question
10 is, would the Energy Commission, the ARB, and the taskforce
11 here, consider expanding this proposed program to reducing
12 test of costs for projects not related to distributed
13 generation, for instance, biomethane developed for natural
14 gas vehicle fueling stations? And another comment, just as
15 the plan is edited and developed, that we ask that this
16 taskforce use language that was consistent with the
17 definitions proposed in the RPS Guidebook, which we'll be
18 voting on tomorrow. Thank you.

19 MS. HOWARD: Tamara, just a real quick response on
20 that. The thinking on that one action was that it would be
21 handled through our research contract process, and quite
22 frankly, that truly was an idea in there, and as we move
23 forward with proposals and looking at what the mix in
24 California is, and who has got source data and who doesn't,
25 we'll look at -- and even at who would let us come in and

1 conduct source testing -- we'll look at what the candidates
2 are. But you're going to send comments in writing?

3 MS. RASBERRY: Yes, we will.

4 MS. HOWARD: Okay, great. We'll check those out,
5 yes.

6 MR. KAFKA: Hi, this is Steve Kafka. The California
7 Biomass Collaborative is currently funded through the PIER
8 Program to expand its database on food processing waste, so
9 it might be considered pre-consumer waste. We hope to -
10 it's more than a thousand firms in California, and we hope
11 to have a publicly available database of our discovery of
12 quantity, seasonality, quality, and other issues, fairly
13 soon. We're going to be talking about it at our forum in
14 early April, and about potential energy generation from that
15 source, and also wastewater sources. So, we welcome your
16 participation in that.

17 MS. RASBERRY: Great, I will make sure the right
18 people are there. Thank you.

19 MR. LEVINSON: And with respect to the RMDZ
20 question, are you going to submit that in writing, as well?
21 Because I didn't quite follow your description, or I can
22 give you my card and you can send me a description follow-up
23 and see whether that's an eligible activity, or eligible
24 project.

25 MS. RASBERRY: That would be great. I thought maybe

1 I might be able to get an answer while you all were here,
2 but I can talk to you later about that. Thank you.

3 MR. O'NEILL: Any other questions from the room?
4 Okay, we're going to open up the phone lines and see if
5 there are any questions on the phone.

6 VICE CHAIR BOYD: Again, the question is, are there
7 any questions from folks on the phone? We opened up the
8 phone lines and there was chaos there for a minute. We want
9 to try again. If anybody has a question on the phone, we'll
10 take another risk at opening up the phone line so you can
11 ask your question. But all side discussions have to stop
12 for a moment. They're just partying too much. Well, if
13 there are no more questions or comments, rather, from folks
14 on the phone or in the room, the agenda says the Working
15 Group can have any kind of discussion it might want to have
16 on what we've heard today, or maybe we've commented quite a
17 bit.

18 I want to go back to the question that Val raised
19 earlier and Tamara's questions reminded me of it a little
20 bit, about source testing, particularly of landfill gas, but
21 just the issue of gas quality and, as Val probably knows,
22 having worked in the PIER Program once, an awful lot of time
23 and money has been spent repeatedly down through the years
24 on the question of gas quality from various sources and the
25 issue of pipeline gas quality specs that are either

1 promulgated by the PUC, or some of the earliest questions
2 were the natural gas quality specs of the ARB with regard to
3 vehicular fuel; in fact, the vehicular fuel issue goes back
4 almost a decade, at a time when less than one-tenth of one
5 percent of gas was used for vehicular fuel, the
6 specifications made it very hard to put some of our sources
7 of gas into the backbone system of the state because the gas
8 utilities or those who transport gas wouldn't accept gas
9 unless it met that specification. A lot of that continues
10 being debated to this day, and then along came LNG and
11 possible imports which raise gas quality questions. And so,
12 at present, the PIER Program is paying for yet another gas
13 quality study, which the landfill gas folks in a recent
14 symposium I attended said they were waiting for the results
15 of, and the utilities were waiting for the results of that
16 latest study before any commitments would be made about the
17 willingness to accept landfill gas, and that is separate and
18 apart from the piece of legislation, you know, the statutes
19 in the state that have to be addressed with regard to
20 receiving landfill gas and a concern about toxics. So, I'm
21 not clarifying anything I know with this answer, what I'm
22 pointing out is that this has been a longstanding difficult,
23 and continues to be a difficult issue that many many people
24 are trying to pursue the answer to. But I'm sure that if we
25 were to try to change, modify California's statute to allow

1 landfill gas to be injected into our California backbone
2 pipeline system, the question of the quality of that gas is
3 going to be raised. To me, the difficult and almost sad
4 part of this is the California law is prohibiting the use at
5 the present time of California derived landfill gas, so
6 utilities are legally importing landfill gas from other
7 states and transporting it long distances through pipelines
8 to receive it here in California, to get RPS credits for
9 using that gas. And that, to me, is an almost silly
10 situation that I'm hoping we will address in this year, but
11 it will take some form of testing to provide assurance to
12 certain folks who are concerned about potential toxics in
13 landfill gas. I, on the other hand, believe that technology
14 exists today that maybe didn't exist decades ago when the
15 statute was passed during the great toxic concerns in
16 California, that we have technology today that can address
17 those issues and pass all air quality local district rules
18 and regulations, and therefore more or less assure that the
19 gas would be of quality acceptable to be used in the state,
20 but that's an issue we'll just have to deal with. It is on
21 our program as something we will deal with within this plan,
22 and this group, and this Commission will deal with. Now, I
23 was handed a blue card. This is from Val again. "Seems
24 challenges can be divided in four classes: institutional,
25 technical, economic, and environmental." That was a

1 comment. I have no response to that. Thank you, Val. All
2 right, other members of this group? Feel free to make
3 comments.

4 MR. MENKE: John Menke with a comment. I remember
5 one of the earlier versions of the action plan had OEHHA,
6 the Office of Environmental Health Hazard Assessments, one
7 of the Cal EPA agencies that was going to look at landfill
8 gas from the health hazard standpoint. I've forgotten what
9 happened to that potential involvement of OEHHA. Does
10 anybody know what the status is of that?

11 MS. MICHAEL: I have been in touch with them, but I
12 didn't get confirmation that they would be willing to play
13 that role. We're in a discussion with them currently.

14 VICE CHAIR BOYD: Maybe, John, you can take that
15 back with you to mention to OEHHA that this is an
16 outstanding question that we'd like to resolve before we put
17 this to print, finally.

18 MR. BLUE: I was going to try to impersonate
19 Clarence Thomas here and not say anything. But this is John
20 Blue with Cal EPA. I did want to mention and respond to the
21 economic development point a gentleman raised earlier, and
22 that, I think, is an excellent point, that we do need to
23 consider economic development. And it may be as simple as
24 connecting some outreach to the Economic Development
25 community while we're trying to develop these projects.

1 There are existing local and regional economic development
2 professionals out there that we could tap into this process.

3 VICE CHAIR BOYD: I think some of the agencies here,
4 I know my own -- this is Jim Boyd speaking again, by the way
5 -- have lots of dialogue going with these agencies at the
6 present time, so I would think, amongst the folks here, it
7 wouldn't be very difficult to write a few paragraphs, not
8 just a few words or sentences, about economic development
9 issues and opportunities that would be appropriate. It's a
10 good point and, in other areas, we go to great lengths to do
11 that, and I think we just got -- it's just an oversight, I
12 think, on our part. Well, Garry, seeing no more, you might
13 want to call an end to this. I'm just a panelist.

14 MR. O'NEILL: All right. So, our next steps is to
15 incorporate the written comments. Again, they're due
16 December 29th. Bioenergy Interagency Working Group will meet
17 in January to discuss the comments and discuss potential
18 changes to the plan, and we hope, again, to release the
19 final plan in March. Thank you all for your participation
20 and look forward to your comments.

21 VICE CHAIR BOYD: And I will just say, I want to
22 thank all the members of the group sitting up here, but for
23 you to thank all of your staff back at the respective
24 offices for all the work I know they've put into this, and I
25 want to commend all the staffs for the good work, and thank

1 you for your time, and commend my own staff here at the
2 Commission because they've done some good work, all of them
3 from all agencies, in a short period of time. And hopefully
4 we can move this subject along. So, thank you everybody,
5 and happy holidays to all.

6 (Adjourned at 3:28 p.m.)

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