

STATE OF CALIFORNIA - THE RESOURCES AGENCY
BEFORE THE
CALIFORNIA ENERGY COMMISSION (CEC)

In the matter of,)
) Docket No. 12-EPIC-01
)
Development of the California)
Energy Commission Investment)
Plan for the Electric Program)
Investment Charge Program)

**Staff Workshop on the Energy Commission's
Draft EPIC Investment Plan**

California Energy Commission
1516 Ninth Street
First Floor, Hearing Room A
Sacramento, California

Thursday, September 27, 2012
10:00 A.M.

Reported by:
Kent Odell

COMMISSIONERS

Robert B. Weisenmiller, Chairperson
 Andrew McAllister, Commissioner
 Carla Peterman, Commissioner

STAFF

Laurie ten Hope, Deputy Director, Research & Development
 Division
 Erik Stokes, Staff, Research & Development Division
 Pam Doughman, Staff, Efficiency & Renewable Energy
 Division

Also Present (* Via WebEx)

Presenters

Andrew Schwartz, Procurement Strategies Supervisor, CPUC

Public Comment

Owen Howlett, Energy Commission
 Mike Gravely, Energy Commission
 Colleen Quinn, Coulomb Technologies
 Holly Wyer, State Lands Commission
 William Lyte, Protean North America
 Bob Raymer, California Building Industry Assoc.
 Michael Boccadoro, Agricultural Energy Producers Assoc.
 Peter Miller, Natural Resources Defense Council
 Alex Leumer, Nature Conservancy
 Todd Maki, Electric Power Research Institute
 Chris Carney, Union of Concern Scientist
 Carl Blumstein, Director, California Institute for Energy
 and Environment, University of California
 Steve Zuretti, Solar Energy Industries Association
 Chris Murkens, CALSTARTS
 Chuck White, Waste Management
 Aaron Lewis, National Asian/American Coalition
 Kristin Carter, Grant Management Associates
 Blair Swezey, SunPower
 Paul Mason, Pacific Forest Trust
 Mirko Previso, ReVision
 Garry O'Neil
 Leonard Devanna, Clean Energy Systems
 Dan Chia, Solar City
 Valerie Winn, PG&E

CALIFORNIA REPORTING, LLC

52 Longwood Drive, San Rafael, California 94901 (415) 457-4417

Public Comment (*Via Telephone)

*Jon McHugh

*Haresh Kamath, Electric Power Research Institute

*Carol Zabin, UC Berkeley

*Sashu Constantine, California Center for Sustainable Energy

INDEX

	Page
Introduction	
Laurie ten Hope, Deputy Director, Research & Development Division, Energy Commission	5
Opening Remarks	
Chair Weisenmiller, Energy Commission	6
Commissioner Carla Peterman, Energy Commission	9
Commissioner Andrew McAllister, Energy Commission	10
Overview of the EPIC Decision	
Andrew Schwartz, Procurement Strategies Supervisor, CPUC	11
Overview of Energy Commission's Draft EPIC Investment Plan	
Laurie ten Hope, Deputy Director, Research & Development Division	24
Erik Stokes, Staff, Research & Development Division	
Pam Doughman, Staff, Efficiency & Renewable Energy	41
Public Comment	52
Summary Remarks	
Chair Weisenmiller, Energy Commission	140
Commissioner Peterman, Energy Commission	143
Commissioner McAllister, Energy Commission	143
Adjournment	146
Reporter's Certificate	147
Transcriber's Certificate	148

P R O C E E D I N G S

1
2 SEPTEMBER 27, 2012

10:08 A.M.

3 CHAIRPERSON WEISENMILLER: Good morning, welcome
4 to our workshop today. This is our workshop on EPIC.
5 We certainly -- first, I want to kick off today and
6 Laurie, why don't you go forward.

7 MS. TEN HOPE: Good morning. I'm Laurie ten
8 Hope; I'm the Deputy Director for Research & Development
9 here at the California Energy Commission, and I want to
10 welcome you all to our staff workshop for our draft EPIC
11 Investment Plan.

12 We're really looking forward to public comments
13 today. We've put the Investment Plan out last Friday.
14 And there are copies of the Investment Plan out, as you
15 walk in, along with agenda and presentation materials
16 for today.

17 Before we get started I just want to mention a
18 couple of housekeeping items for any of you who might
19 not be familiar with our building.

20 We have rest rooms on the first floor. They're
21 sort of diagonally behind us by the exit door. But this
22 exit door is alarmed. So, if you're going out for a
23 break or lunch, use the front door.

24 We have a snack bar on the second floor for
25 coffee and snacks.

1 If there's an emergency, follow staff out of the
2 building, across the street to Roosevelt Park and we'll
3 return when it's safe to do so.

4 I'll give more of a context for today's workshop
5 after our Commissioners, so I'd like to turn it over for
6 opening remarks to our Chair and Commissioners.

7 CHAIRPERSON WEISENMILLER: Yeah and thank you,
8 welcome today. First of all I'd like to start out for
9 thanking the staff for their hard work on this. We've
10 had a pretty tight timeline and, actually, it's not over
11 yet in terms of tight timelines.

12 And so it's taken a lot of work and, again,
13 would like to thank them for that.

14 Certainly, innovation is key to California's
15 future and particularly on all these technologies we're
16 really looking at innovation to help drive the cost down
17 or enhance the performance.

18 And we have very limited dollars, you know, and
19 it should be the clear message.

20 Obviously, today, we're coming up with pretty
21 broad categories and we would anticipate in the future,
22 as we go forward, each of those categories would be very
23 competitive. And dealing with the very limited dollars
24 we need to really maximize the benefits to the State,
25 and particularly to the truly ratepayers.

1 And so as part of that, generally, we're going
2 to be relying on competitive processes and generally
3 encouraging people to sharpen their pencils and to come
4 in with ways to really provide high value to the
5 ratepayers.

6 And, you know, one of the things we're looking
7 at today, it's a pretty broad list and, again, going
8 forward it's important to focus on what are the relative
9 to priorities. I'd sort of like to discourage people
10 from saying here's another 20,000 things to add to it,
11 as much as how do we provide relative priorities and
12 focus on this as we go forward.

13 Ultimately, when we close we're certainly going
14 to be encouraging people to provide written comments.
15 We've had a very transparent process and we'll continue
16 to have a very transparent process for this effort.

17 And I would encourage people on the written
18 comments to supplement on the ones you've done so far.
19 There's going to be a very short time for you to prepare
20 your comments and a very short time for you to digest
21 your comments.

22 So, you can assume the staff has already
23 digested your comments that you filed previously and it
24 would be good to really focus on how to supplement as
25 opposed to reiterating that again.

1 So again, thanks for your help today, we're
2 looking forward to a productive workshop.

3 COMMISSIONER PETERMAN: Good morning. This is
4 Commissioner Peterman, hello to all those in the room
5 who have joined us, as well as everyone who's on WebEx.

6 Again, as the Chairman noted, thank you to staff
7 for the tremendous work they've done in developing this
8 draft Investment Plan. They've done this work alongside
9 all the other work that they were hired to do initially,
10 and so we really appreciate the time commitment and the
11 thoughtfulness that has gone into this plan.

12 Chair Weisenmiller has really explained well why
13 we're here today, what the process is, and the type of
14 feedback we're looking for from all of you.

15 Indeed, innovation is important and I will just
16 add to that that we are in the midst of building out our
17 clean energy sector as we speak. All of you have been
18 actors in that.

19 And since we are in the middle of that right
20 now, we want to make sure that, again, we're focusing on
21 opportunities that are going to help us in the near
22 term, as well as some long-term opportunities. But,
23 really, what can we do to make our renewable energy and
24 our energy efficiency processes more efficient and more
25 integrated in the immediate time.

1 Again, I echo the Chair's comments about the
2 need to maximize value, particularly maximize value to
3 the ratepayers, considering the source of the funds.

4 I look forward to your comments. I've
5 appreciated the engagement you've had in our workshops
6 so far, both here in Sacramento and in the Los Angeles
7 area, and looking forward to the comments today. Thank
8 you.

9 COMMISSIONER MC ALLISTER: I want to reiterate
10 thanks to staff for all their hard work, and the
11 stakeholders for commenting, and also Chair Weisenmiller
12 and Commissioner Peterman for all their hard work on
13 this as the Committee pushing this forward.

14 And I've been on the sidelines on this but,
15 nonetheless, very interested because PIER has funded so
16 much important work and EPIC will continue to fund
17 important work.

18 And it really is one of the seeds of our success
19 in California in developing innovative technologies that
20 have a place, that we believe can have a place in the
21 marketplace. And helping that role get realized I think
22 is a great role for the State and all the stakeholders
23 to work together to play.

24 And primarily engaged in energy efficiency work
25 right now as the Commissioner on EE and, you know, these

1 programs have funded so much fundamental work over the
2 years and there is still a lot of heavy lifting to do.
3 In the context of innovation, and market development for
4 new technologies this is a critical piece of that
5 puzzle.

6 So, I'm excited to learn more today and hear
7 what many of the stakeholders have to say. Thank you.

8 ADVISORY COMMITTEE MEMBER SHEARS: Okay, let me
9 just briefly, the agenda is up for your viewing and
10 we're first going to hear from the CPUC to provide an
11 overview of the EPIC decision that provides the context
12 for the rest of the day.

13 Then I'll be joined by our co-managers for EPIC,
14 Erik Stokes and Pam Doughman, to provide an overview of
15 the Investment Plan.

16 And then we've devoted the afternoon for your
17 comments in the room and on the line.

18 I hope you don't leave early, but if anyone does
19 leave early there is a handout that has the questions
20 that we're asking participants to respond to. The Chair
21 spoke to those questions.

22 And he's very interested in narrowing the scope.
23 If you have an additional project suggestion, there's a
24 template that we'd ask that you provide so we have
25 sufficient information to consider any initiatives that

1 might be missing.

2 With that, I'm going to turn it over to Andy
3 Schwartz.

4 MR. SCHWARTZ: Thanks Laurie. First, I want to
5 also acknowledge the work that the CEC has put into this
6 Investment Plan. So, Chairman Weisenmiller and
7 Commissioner Peterman, thank you for your leadership in
8 this area.

9 And I want to also thank the CEC staff for all
10 the hard work and thoughtfulness that's clearly gone
11 into this Investment Plan.

12 It literally speaks volumes of the CEC's
13 commitment to making sure this is a robust and effective
14 program.

15 Before I get into the bulk of my remarks, I
16 thought it would be useful to also give people who
17 aren't familiar with my role in this to explain the
18 CPUC, and my team's role in the EPIC Program as it goes
19 forward.

20 So, as Laurie mentioned, I'm a Supervisor of the
21 Emerging Procurement Strategy Section at the PUC. It's
22 my team that has lead staff responsibilities in
23 overseeing the activities related to EPIC when these
24 plans are submitted to the Commissioner for formal
25 approval at the Commission.

1 So, we're the staff contact if stakeholders have
2 questions. If internal stakeholders or external
3 stakeholders have questions about the CPUC's role, we're
4 really the staff you should come to.

5 In addition, we'll be working with the
6 Administrative Law Judge that will be assessing and
7 reviewing these plans when they're submitted in
8 November.

9 So, that's a little bit about our role. I
10 wanted to start the presentation with a little bit of
11 the legislative and regulatory context.

12 As many of you know, the Public Goods Charge
13 sunset in December of last year. In the PUC's view, and
14 I think in many of your view, this left a fairly large
15 policy gap in the energy space to the extent that the
16 PUC had previously been funding a lot of activities to
17 support emerging clean energy technologies.

18 To address that gap, in May of this year the
19 Commission issued a decision that established a new
20 program and framework for the deployment of public
21 dollars to continue support for emerging clean energy
22 technologies.

23 That program, which is going to be funded via
24 the Electric Program Investment Charge, a non-bypassable
25 charge, will provide \$162 million per year to support

1 investments in clean energy technologies.

2 I should also note that this budget does -- this
3 is an annual budget so every year \$162 million will be
4 collected. For 2012, the amount is actually \$143
5 million. This was pursuant to the phase one decision
6 which directed the IE's to continue to collect monies
7 consistent with what they've been collecting before.

8 Every three years that \$162 million will be
9 addressed and to account for inflation.

10 The next slide, please. So, as has been
11 referenced, alluded to by the Commissioners and Chairman
12 in their opening remarks, the primary focus of the EPIC
13 program is to support investments or to provide public
14 funds to support investments in emerging clean energy
15 technologies.

16 And in particular to fulfill some of the capital
17 gaps that exist when technologies move through their
18 development cycle.

19 So, this is often depicted and many of you have
20 seen this presentation before, so this won't be new to
21 you, but is represented via the technology maturation
22 curve, which we show here and the notion that
23 technologies, even very promising technologies, move
24 through their development cycle there are certain areas
25 where there isn't really sufficient private capital to

1 allow a technology to move forward.

2 And the EPIC program is largely focused on
3 filling those capital gaps.

4 In addition, I've focused and we tend to focus
5 on the development of new technologies. That's not the
6 exclusive role of EPIC monies. The monies are also
7 available to provide support for the development of the
8 analytical tools that are needed, and the type of
9 analyses that are needed to really inform legislative
10 and regulator decision making to help us better
11 understand how new technologies will interact with each
12 other, the role they play in the market and things of
13 that nature. But the primary focus is on the emerging
14 technology front.

15 The next slide, please. So, when the Commission
16 was evaluating the need to provide additional funding or
17 supplemental funding for emerging clean energy
18 technologies, there are really four areas that we looked
19 at; so four broad categories which I've identified here
20 with their respective definitions.

21 So, we looked at applied research, whether
22 there's a need to provide public support for technology
23 demonstration deployment, whether we should provide
24 monies towards market support activities, and then also
25 whether there was a need for money to help technologies

1 actually get deployed once they are commercially viable
2 through market facilitation.

3 In our view, ultimately, the Commission
4 determined that three of these areas, so applied
5 research, technology demonstration deployment and market
6 facilitation merited support.

7 We determined, the Commission determined not to
8 provide additional money for activities that had been
9 previously supported via the PGC, that were deemed
10 market support activities for various reasons.

11 I don't want to belabor that, except to point
12 out that in the Commission's decision there was a
13 strong, I think a policy position favorable towards
14 ongoing support or continued support for the New Solar
15 Homes Partnership Program, which had previously been
16 funded via the PGC.

17 At the time the Commission wrote that decision
18 our hands were tied, statutorily, in terms of being able
19 to provide incremental support without adversely
20 impacting the general budget for the California Solar
21 Initiative.

22 Earlier this year Senate Bill 1019 passed, the
23 budget trailer bill that appears to have provided
24 additional flexibility there and so I think the CEC has
25 appropriately, in their draft Investment Plan, suggested

1 augmenting the New Solar Homes Partnership budget.

2 The next slide, please. This slide obviously
3 shows the breakdown of the budget by the broad funding
4 categories. So, as you can see, \$55 million has been
5 allocated to the applied research area, for technology
6 demonstration deployment activities \$75 million in
7 total.

8 Those monies are being jointly administered
9 basically by the CEC, so \$45 million of that funding is
10 being administered by the CEC and \$30 million being
11 administered by the utilities.

12 A couple of notes on the technology
13 demonstration deployment budget, of that \$45 million 20
14 percent, a minimum of 20 percent of that money has to go
15 towards bioenergy projects. That was deemed by the
16 Commission to be an area where historically there has
17 been under-investment and there are significant
18 opportunities to deploy technologies in that area that
19 need to be explored.

20 So, again, a minimum of 20 percent of that
21 funding should go to bioenergy.

22 And then with regard to the utility budgets, the
23 Commission determined that none of that money could be
24 used for generation demonstration projects. The
25 utilities are able to propose generation demonstration

1 projects using funds outside of the EPIC Program. But
2 for purpose of EPIC funds, they cannot be used by the
3 utilities to support generation-based projects.

4 \$50 million is allocated to market facilitation
5 activities. So, this will focus -- the idea here is to
6 focus on things like permit streamlining, you know,
7 standardization of building codes and things like that
8 that may impede -- or providing model codes that may
9 impede the ability of new technologies to be deployed,
10 as well as enabling those entities that are responsible
11 for permitting and allowing these things to go forward
12 to implement new systems to help facilitate that
13 process.

14 And then, lastly, there's sort of program
15 administration and oversight activities, so roughly \$17
16 million in total there, with the CEC and utilities
17 having ten percent of the overall budget for -- of their
18 individual budgets for program administration.

19 And then the PUC, who has ultimate oversight
20 responsibility for this program, has an \$800,000 share
21 of the total.

22 Next slide, please. This provides a little bit
23 more detailed breakdown, just showing what the
24 individual budgets are of the utility administrators.
25 And so each utility is planning -- my understanding is

1 each utility is planning on submitting their own
2 investment plan addressing the technology and
3 demonstration areas that they're interested in pursuing.
4 And they have slightly different amounts based on sort
5 of their pro rata share of the overall budget.

6 This is the schedule for the EPIC program. So,
7 the program has three investment planning cycles. These
8 are triennial investment plans, so the first one is
9 covering 2012 to 2014.

10 There will be a second investment plan covering
11 the period from 2015 to 2017 and then a third investment
12 plan covering from 2018 to 2020.

13 As you can see, for each investment planning
14 cycle the program administrators are required to develop
15 and then submit investment plans to the PUC for
16 approval. This is a pretty critical feature of the
17 program because the Commission is doing this program
18 under its own authority.

19 And in concept, the idea is for us to provide
20 up-front approval for the expenditures that will be
21 under those plans.

22 It's absolutely essential that we have really
23 fully developed and fairly granular plans that the
24 Commission then approves, and then once those plans are
25 approved the program administrators will execute

1 against.

2 In terms of the schedule for actual decisions,
3 for the first investment plan cycle we don't expect the
4 decision until May 2013. Again, that's, you know, in
5 part a product of just the time it takes for a
6 Commission proceeding to be open and to run through its
7 process, in addition to give what limited time we have
8 given to the program administrators to develop plans.

9 For the investment plan and third investment
10 plan there will be decisions for each of those,
11 respectively, in December 2014 and then December 2017.

12 Next slide, please. I wanted to spend some time
13 talking about what the expectations are for what's
14 included in these plans as that can inform both the
15 program administrators' efforts as they move forward
16 prior to submission of those plans to the Commission, as
17 well as inform the comments that stakeholders may have
18 on those plans.

19 So, in providing guidance in the phase two
20 decision, which established this planning process, the
21 PUC identified key principles that the plans should
22 reflect.

23 The overarching principle being that any
24 expenditures provided by the EPIC program need to
25 provide ratepayer benefits. Specifically, electricity

1 ratepayer benefits who are the source of funding for
2 this program.

3 As I'm showing here, there are a lot of
4 different dimensions or a lot of different things that
5 could be considered consistent with the notion of
6 providing electricity ratepayer benefits.

7 The decision identified a host of these that
8 are -- that basically align with various legislative and
9 regulatory mandates that the Commission is operating
10 under. So, enhancing reliability and safety, reducing
11 costs, advancing the loading order, promote economic
12 development.

13 Obviously, near and dear to my heart, given the
14 areas I work on, reducing greenhouse gas emissions,
15 supporting clean transportation and, obviously, using
16 ratepayer funds efficiently.

17 In addition, to sort of put a finer point or
18 really underscore the centrality of providing
19 electricity ratepayer benefits, any proposed use of the
20 monies needs to be map-able to the electric utility
21 value chain. So, we define the value chain, sort of the
22 series of activities that take place, or that are
23 conducted in order to provide energy services to end
24 users as being -- you know, as consisting of operations,
25 market design, generation, transition distribution and

1 then demand side management and, really, customer
2 behavior and use of energy.

3 Any activity that's funded through the EPIC
4 program needs -- you need to be able to draw a line and
5 explain how it relates to one or more of these aspects
6 of the value chain.

7 The next slide, please. As I mentioned, the
8 Commission provided guidance, but is expecting the
9 program administrators to develop fairly robust plans
10 and then we can evaluate through a stakeholder process.

11 And in developing those plans we are expecting a
12 pretty substantial amount of granularity.

13 Again, this is critical because we are
14 providing -- right now the vision is that the Commission
15 will provide up front authority to the program
16 administrators and then execute these plans.

17 In order to do that and maintain appropriate
18 oversight responsibility we have to have very detailed
19 information about how that money is going to be
20 distributed.

21 So, in the plans there needs to be information
22 provided about what the specific funding areas, funding
23 priorities are for those plans, what those funding
24 amounts are for each of those areas, what the project
25 eligibility criteria will be, what the project selection

1 criteria will be and what the approach is.

2 So, are these projects going to be considered
3 via an RFO process? Are there instances where sole
4 source allocations might be appropriate?

5 Also, I think this also covers issues around
6 what would be any sort of funding look like? Would it
7 be provided on a pay-for-performance basis, or up front,
8 or how would that work?

9 Also, for project funding limits matching
10 requirements that may make projects more attractive.

11 Importantly, also, metrics for measuring the
12 benefits that a project provides and how we would define
13 sort of success of any projects that are funded.

14 And then another important area on how should
15 intellectual property for different projects be treated?

16 Actually, you know, one other thing I do want to
17 mention on the prior slide is one of the concerns that
18 was expressed throughout our proceeding was the need for
19 effective coordination with other activities that are
20 going on.

21 That is one of the reasons, one of several
22 reasons why, obviously, stakeholder input is critical so
23 that we have a -- we're sort of putting feelers out so
24 we have a broad sense of what's going on, generally.

25 But the expectation in the plans is that there

1 will be information that provides a sense for what are
2 the suite of -- what are the universe of activities that
3 are occurring elsewhere that relate to different funding
4 areas, and how does the funding that's being proposed in
5 those investment plans dovetail and really leverage
6 those activities, whether those activities are happening
7 at the State level via other programs, at the federal
8 level or, conceivably, internationally.

9 And then, lastly, the decision that the
10 Commission issued does have a number of reporting and
11 sort of oversight components, so the program
12 administrators are required to file annual reports.

13 I believe the first decision is February 28th,
14 2014 and then annually thereafter through, basically,
15 the end of the EPIC program as currently envisioned in
16 2020.

17 Also, the CPUC will be hiring an evaluator to
18 conduct an independent evaluation of the program to help
19 provide guidance on how the program's doing, are there
20 course adjustments that need to be made, and things of
21 that nature.

22 So, I think that's my last slide. This is my
23 contact information. Again, I'm one of the staff leads
24 on this. My colleague, Jim Turhal, who's not with us
25 today, but will be back in the office on Monday, is the

1 other primary contact.

2 So, if stakeholders do have any questions about
3 the CPUC process and what to expect there, you know,
4 we're happy to entertain those questions.

5 So, with that, I look forward to a productive
6 workshop and we'll turn things back over to Laurie.
7 Thank you.

8 MS. TEN HOPE: Thank you, Andy.

9 Before I start, in addition to thanking the
10 staff team, I also want to thank the stakeholders that
11 participated in our Northern California and Southern
12 California workshops and submitted comments. We had
13 over 130 sets of comments and so those form the
14 foundation for our plan and, of course, for those of you
15 who came today.

16 This has also been a collaboration with the
17 three utilities that also are responsible for
18 administering portions of the funding and so, you know,
19 we have been collaborating and sharing information on
20 how we approach the Investment Plan so that we synergize
21 each other's efforts and these submittals are not
22 duplicative.

23 And of course the CPUC, Andy and Jim have been
24 extremely helpful and we appreciate that.

25 So, the next slide. We're here to basically

1 review what we've put together. We took the CPUC's
2 decision and put together an investment plan that we
3 thought reflected the criteria and requirements of the
4 investment plan, and also reflect the State' policy
5 goals in a way to return value back to those who support
6 the fund.

7 Today's workshop will review the plan and then
8 ask for your input on what you've heard and what you've
9 read in the Investment Plan.

10 After the workshop written comments can be
11 submitted up to October 1st. Then the staff will revise
12 the plan based on the feedback we hear today and your
13 submitted comments, and issue a revised plan in mid-
14 October.

15 The Energy Commission will consider the
16 Investment Plan for adoption at a business meeting
17 tentatively scheduled at this point for October 25th.

18 And following that we submit the Investment Plan
19 to the CPUC and you heard the schedule from Andy.

20 So we'll move to the next slide. The Investment
21 Plan is organized in chapters, starting with the program
22 directives and how we approach the program directives
23 that Andy outlined.

24 What are the ratepayer benefits? How are you
25 going to avoid duplication? How is this connected to

1 the policy goals?

2 You know, how is this program going to be
3 developed and administered?

4 Then the next three chapters are each of the
5 funding categories that are established in the CPUC
6 decision, applied research and development, technology
7 demonstration and deployment, and market facilitation.

8 Then a chapter on proposed funding for New Solar
9 Home Partnership Program, and then followed by a program
10 administration and program benefits chapters.

11 Next. So, I think basically this context was
12 already set by Andy, with the exception of the last
13 bullet, which is kind of obvious. This process is
14 overseen by our lead Commissioner on R&D, Chair
15 Weisenmiller. And for the renewable portions
16 Commissioner Peterman.

17 The next slide. This slide might look familiar.
18 These are the criteria that Andy just showed and they
19 are reflected in the template. When you look at the
20 Investment Plan there's a template that includes
21 purpose, background, and mapping back to the electricity
22 system and the identified ratepayer benefits, and the
23 sections in each of the chapters identify the proposed
24 funding limits for projects within each category,
25 proposed match funding within each category. And

1 intellectual property is included in chapter 7.

2 The proposed CEC budget is completely in line
3 with the budget that was in the decision. We didn't
4 deviate or ask for any deviation from the budget.

5 The one addition is the funding for New Solar
6 Home Partnership. The CPUC decision established, opened
7 the door for NSHP and we are requesting funding up to
8 \$25 million. The funding amount would depend on the
9 funding balance in the RRTF program. And you'll hear
10 more about that in a little bit.

11 So, after -- I mean the decision sets the
12 framework and then the State's policy goals set the
13 vision for what is it that we're trying to achieve in
14 this clean energy future.

15 And I'm sure you're familiar with most of these
16 goals. Energy efficiency leads the loading order,
17 demand response is included. Energy efficiency and
18 demand response are at the top of the loading order.

19 Renewable energy and then the infrastructure,
20 the infrastructure to support a safe, reliable, cost
21 effective electricity system.

22 And so we take the framing that comes from the
23 policies from the Legislature, our own Energy
24 Commission, Integrated Energy Policy Reports, the policy
25 documents from the CPUC and, of course, the Governor.

1 So, also added on this, in addition to energy
2 efficiency, with the goals of achieving all cost
3 effective energy efficiency and reaching ZNE targets for
4 homes and businesses, we've added the transportation
5 goals from the Governor's recent Executive Order.

6 For those portions of transportation that are
7 electricity related, and having the tools and technology
8 to enable integration of electric vehicles into our
9 electricity system.

10 And a driver for a large portion of the energy
11 goals are the GHG reduction goals embodied in AB32.

12 Next. So, these are some policy statements that
13 are illustrative. It's not intended to be a full list
14 of all the policy statements that drive efficiency,
15 clean generation, smart grid, and then the cross-cutting
16 area.

17 But we did pull out a few examples from the
18 California Energy Efficiency Strategic Plan that
19 establishes specific goals and also strategies for
20 achieving the goals.

21 And each of these documents highlight not just
22 the policy, but what are some of the gaps and barriers
23 to achieving the goals?

24 For example, the middle one for energy
25 efficiency, California will need new cost-effective

1 technologies, strategies and innovations for existing
2 and new buildings to reduce energy use, such as new
3 building materials, and fabrication techniques, and
4 smarter building operating systems such as visual
5 displays and real-time energy use.

6 There's a lot embodied in that in terms of cost-
7 effective energy efficiency for new construction, a
8 focus on the retrofit market which has been certainly
9 lagging in terms of energy efficiency. Real-time
10 displays that help address some of the consumer behavior
11 challenges in perceiving energy use and being able to
12 respond to energy use.

13 And additional policy statements in the other
14 key areas, you know, including generation, smart grid,
15 and cross-cutting.

16 These are highlighted in more detail in the
17 Investment Plan and I just -- this is an important
18 framing for the objectives that -- for the strategic
19 objectives and the initiatives that you'll hear about.

20 Next. So, we thought it would be helpful to
21 really establish an EPIC vision and an EPIC mission, and
22 you're welcome to comment on this as well.

23 The vision just basically embodies the policy
24 goals. We're setting policy goals of an electricity
25 system that incorporates a lot of changes from energy

1 efficiency to renewables that could be at the customer
2 site, community site, at the utility scale,
3 electrification of transportation.

4 And this really requires a highly flexible and
5 robust transmission and distribution infrastructure to
6 support that, along with some other enabling
7 technologies like demand response, storage, and in
8 communication and control strategies that underlie the
9 sophistication of managing what could be a very clean
10 and robust system, but a more complicated system.

11 And so the purpose of the mission for the
12 Investment Plan that we put forward is what we
13 anticipate the key gaps are, and tools and strategies
14 needed to achieve that vision.

15 And so we really welcome your feedback on
16 whether we've got those right, and have the right
17 emphasis on the right needed technologies and
18 strategies.

19 This is basically a visual to illustrate the
20 electricity system we're moving from, on the left, to a
21 potential system that we're moving to, on the right.

22 And the power system we have now is more linear, it's
23 not quite this simple, but customers connected to a
24 transmission distribution system and large power plants
25 at the other end.

1 And I'm sure my utility friends would think that
2 was a little too simple.

3 But in the future, looking at adding renewables
4 that generate at different times of day, and different
5 seasons, some of those at your business, or industry, or
6 home are going to require sophistication in terms of our
7 system operators, our utilities, or even customers that
8 would be managing and balancing supply and demand at
9 their level, and then throughout the utility system.

10 And so many of the initiatives that are included
11 in the plan deal with the integration and interaction of
12 this envisioned power system.

13 The next slide, please. This just basically
14 reiterates the budget that we're operating within the
15 Investment Plan.

16 And the CPUC decision lays out an innovation
17 pipeline. And we've given some thought to the
18 technologies and strategies needed more in the applied
19 research area where component innovation might be
20 needed, or analysis is needed versus the technology
21 demonstration area where scale-up and real-life field
22 demonstrations are the challenge in moving clean energy
23 into the marketplace.

24 And the final category is market facilitation,
25 with technical assistance and outreach that support and

1 enable the transition to the marketplace.

2 This slide, it's a little hard to read, but it
3 basically lays the framework for the funding buckets
4 along the top row and the policy drivers along the left-
5 hand side, and then the featured technology areas within
6 each of the blocks.

7 So, in the applied research area some of the
8 priority areas for innovation are in the areas of plug
9 load, lighting, HVAC and refrigeration, building
10 envelope, existing building retrofit strategies in
11 addition to components.

12 What are the cost-effective ways to basically
13 retrofit, whether it's improved maintenance and
14 diagnostics in existing buildings, or cheaper packaging
15 of retrofit strategies that make it more cost effective
16 to reach that marketplace?

17 In the technology demonstration area we're
18 looking at the demonstrations of energy efficiency
19 coupled with demand response, whole building retrofits,
20 and ZNE or near ZNE building in communities.

21 I think, in the interest of time, I will not go
22 through the entire chart. I do want to point out one
23 area of emphasis. You'll see the box for the investor-
24 owned utility emphasis.

25 I'm not going to hold them to it and can't

1 really speak for them. But in discussions at this point
2 the investor-owned utilities, in their three plans, are
3 looking at the focus of their research being in the
4 technology demonstration and deployment area for smart
5 grid so that the transmission and distribution system is
6 ready to accommodate the policy goals that they're
7 required to operate under, as well.

8 And so it's going to be important for us to feed
9 the pipeline on smart grid technologies that would move
10 into the technology demonstration area, and to
11 collaborate on what's planned in each portfolio because
12 there's so much integration that is important here.

13 The next slide. This is a new table that was
14 not in the Investment Plan and it's taking the budget
15 that is in the plan, that had buckets for applied
16 research, technology demonstration, deployment and
17 market facilitation and breaking it down, one level
18 down, to basically the policy goals of energy
19 efficiency, clean generation, smart grid, and cross-
20 cutting so that you can -- this is our preliminary
21 thinking. This is very much a draft budget out for
22 everyone's consideration.

23 And it's based on a few operating assumptions.
24 One, we wanted the funding to reflect the loading order,
25 so there's a real emphasis on efficiency and renewable.

1 In applied research it's a heavier emphasis on
2 energy efficiency.

3 As you move into technology, deployment and
4 market facilitation, the funding evens out or is
5 exceeded by renewables because there's a lot of energy
6 efficiency money in the deployment and market area with
7 the utility-administered incentive programs.

8 So, it's important that the research here feed
9 building standards, utility incentives and other paths
10 to market.

11 It also reflects our understanding of where the
12 emphasis would be in the utility investment plans, so
13 there is very little demonstration money in the smart
14 grid area.

15 Our focus in smart grid is proposed to be in
16 applied research.

17 And in parentheses are the strategic objectives
18 that are outlined in the plan and that you'll hear a
19 little bit more about today.

20 The next slide. Okay, the framework, in
21 addition to policy we thought about some overarching
22 guidelines for the initiatives that we would establish
23 and then the policies we recommend for administration of
24 the program.

25 So, number one policy goals. Number two is

1 accelerating home-grown technology innovation. We're
2 looking at supporting California research organizations,
3 universities, entrepreneurs, businesses, homeowners, and
4 with a focus on, basically, grants and awards in
5 California.

6 We recommend a project selection process that's,
7 of course, designed to select the most promising
8 technology solutions that are not duplicative, assert
9 downward pressure on administrative costs and maximize
10 in-State investments.

11 We've also tried hard to really reflect and
12 embody ratepayer benefits in the entire plan and build
13 on the lessons learned from the research programs and
14 renewable programs that have existed prior to the EPIC
15 program.

16 You know, it's a new program, with new criteria,
17 but build on lessons learned from previous efforts.

18 Next. Okay, this -- I think I've pretty much
19 covered this in terms of establishing initiatives that
20 tie back to the guiding principles in the CPUC decision,
21 electricity value chain and the benefits.

22 We've also reflected stakeholder comments.
23 We've tried to capture the state of -- you know, state
24 of knowledge in RD&D, but without making it a tome. So,
25 you know, each of the initiatives is only about a page

1 and a half to two pages, and in there try to capture
2 major research efforts or major deployment efforts to
3 signal that this would not be duplicative, but in the --
4 you know, it's not an exhaustive list.

5 But I would ask that if we missed some major
6 efforts that you're aware of, we certainly want to
7 capture that and, you know, home the initiatives to the
8 key areas that are not already covered in State or
9 federal efforts.

10 Okay, now you have a chance to hear from
11 somebody else for a few minutes. I'm going to turn it
12 over to Erik Stokes and he'll walk through, pretty
13 quickly, the high level strategic objectives in chapter
14 3 and 4.

15 MR. STOKES: Good morning everyone. As Laurie
16 said, there's quite a few topics here so we're going to
17 try and get through these pretty quickly.

18 Okay, so this first slide's a summary table for
19 the applied research and development. One thing to
20 point out is that for match funding requirements we're
21 not requiring matched funds but those proposals, when we
22 do competitive solicitations, those proposals that
23 provide match funding will receive higher scores.

24 So, the way the Investment Plan's been set up is
25 we have a high-level strategic objection. And

1 underneath strategic objective we have a set of proposed
2 funding initiatives.

3 So, this first strategic objective is for
4 looking at technologies and strategies to reduce -- or
5 improve energy efficiency and end-use sectors, including
6 the building sectors.

7 Under this strategic objective we have areas
8 such as lighting, plug loads, and also HVAC and
9 refrigeration systems.

10 For the second strategic objective in applied
11 research and development we're looking to develop
12 advanced technologies and strategies that can better
13 enable customer side of that meter energy resources,
14 such as demand response and energy storage.

15 The third objective is essentially developing
16 better technologies, tools and strategies to increase
17 the affordability of distributed generation.

18 In this objective we've identified three
19 potential funding initiatives. The first is under
20 combined heat and power systems, the second is
21 bioenergy, and then the third is photovoltaic systems,
22 but emphasizing more of the soft costs of these
23 photovoltaic systems.

24 Strategic objective four is looking at
25 development and improving utility scale renewable energy

1 generation. Most of the research in this area is going
2 to be foundational, especially looking at some of the
3 offshore resources and investigating potential long-term
4 strategies for those resources.

5 Strategic objective five is looking at
6 strategies and analytical tools that can help us reduce
7 the public health and environmental impacts of
8 generation. It's also looking at ways to reduce the
9 impacts of climate change on the electricity
10 infrastructure.

11 Okay, for this objective we're looking at
12 development better smart grid technologies, tools and
13 strategies with special emphasis on how do we better
14 integrate renewables into the grid.

15 Strategic objective seven is helping us develop
16 some of the better analytical tools and operational
17 tools so that we can better plan for grid resources and
18 how we better integrate these intermittent resources
19 into the grid.

20 The next objective is focusing really on the
21 storage, and storage at the grid scale, development
22 better storage technologies, looking at the ideal
23 applications for these storage technologies and ways to
24 utilize these within the grid.

25 Okay, this objective is focused on electric

1 vehicles. And, specifically, we're looking at
2 initiatives that provide dual benefits, one in helping
3 improve the commercial viability of electric vehicles
4 and also using electric vehicles to benefit the
5 electricity system, such things like battery second use
6 and vehicle degrading.

7 So, S-10's a relative new area for the Energy
8 Commission. This is cross-cutting. We're looking at a
9 couple initiatives to help advance clean energy
10 technologies, one looking at ways to accelerate the
11 commercialization of novel technologies through
12 innovation clusters.

13 The second initiative is looking at testing
14 centers and how we can help verify some of these novel
15 technologies so they can be deployed easier into the
16 field.

17 Okay, so the applied research and development
18 section was focused on developing new prototypes. The
19 technology demonstration and deployment is now how do we
20 scale up these prototypes to demonstrate their real
21 world performance.

22 And here's another summary slide. The estimated
23 minimum/maximum project's going to be a little higher
24 than the applied R&D section. We're looking at bigger
25 projects and we estimate that these projects -- the per-

1 project funding will be in the \$1 to \$5 million.

2 Also different from the applied R&D section is
3 the match funding requirement is set at a minimum of 20
4 percent.

5 So, the first objective is focused on efficiency
6 and scaling up efficiency and demand response
7 technologies in end-use sectors, with special emphasis
8 on the industrial, ag., and water sector.

9 The second initiative is looking at
10 demonstrating whole building retrofits and what are some
11 cost-effective ways to retrofit existing buildings.

12 The second objective is focused on the clean
13 energy generation. In the decision it allocates 20
14 percent of TD&D funds for the Energy Commission to go to
15 bioenergy. The first initiative is focused on the
16 bioenergy.

17 The second initiative is focused on deploying
18 novel CHP applications into the field.

19 And then the third is scaling up technologies
20 and strategies to improve the integration of
21 intermittent renewables.

22 And the next objective is fairly cross-cutting.
23 It's looking at demonstrating zero net energy buildings
24 and communities. It's also looking at how do we share,
25 take the next step with micro grids and sharing

1 resources across micro grids.

2 And then the last initiative is scaling up some
3 of these battery second use and vehicle-to-grid
4 applications.

5 MS. DOUGHMAN: Hello. I'll be talking about
6 market facilitation. Sorry, my name is Pam Doughman;
7 I'm the Technical Director for the Renewable Energy
8 Office.

9 So, the match funding requirements for market
10 facilitation proposed initiatives will be -- there will
11 be no match funding requirement, but those that provide
12 match funds will receive higher scores during proposal
13 evaluation.

14 So, the first objective under market
15 facilitation is an objective that focuses on providing
16 regulatory assistance and streamlining permitting. This
17 would be collaborating with local jurisdictions and
18 stakeholder groups in IOU service territories to
19 establish strategies for enhancing current regulatory
20 assistance and permit streamlining efforts that
21 facilitate coordinated investments and widespread
22 deployment of clean energy infrastructure.

23 And included among the initiatives is an
24 initiative that would provide funding for three pilot
25 demonstrations, one in each IOU service territory and

1 assistance in the development of general plan guidelines
2 among other initiatives.

3 The second objective under market facilitation
4 is to strengthen the clean energy workforce by creating
5 tools and resources that connect the clean energy
6 industry to the labor market.

7 We have two proposed initiatives under this
8 objective. The first is to develop a standardized
9 methodology to assess job creation and net jobs.

10 The second is to provide grants for the
11 development or enhancement of training and
12 apprenticeship programs to support clean energy
13 development programs in IOU service territories.

14 And the last objective in the market
15 facilitation area is to guide EPIC investments
16 successfully through the clean energy technology
17 innovation pipeline by connecting stakeholder groups
18 involved in the development, deployment and integration
19 stages.

20 Among the proposed initiatives here we have a
21 web portal that connects innovators, investors,
22 educators, job seekers, and policymakers to facilitate
23 widespread adoption of new clean energy technologies to
24 benefit IOU ratepayers.

25 Also, we propose to hold technology forums to

1 connect innovators of clean energy technologies with
2 potential investors, customers, job seekers, and
3 policymakers.

4 In addition, we have some other initiatives
5 here, including an initiative to conduct the IOU portion
6 of the California End-use Energy Consumption and
7 Saturation Characterization Survey.

8 Also, we have a proposed initiative to conduct
9 market analysis of innovative strategies to facilitate
10 clean energy storage, demand response, electric
11 vehicles, and renewable energy.

12 Now, we'll discuss the New Solar Homes
13 Partnership. The New Solar Homes Partnership provides a
14 one-time, up front incentive for eligible projects.

15 The NSHP requires that all projects exceed the
16 energy efficiency requirements of the current Title 24
17 building standards by at least 15 percent.

18 The staff draft EPIC Investment Plan proposes up
19 to \$25 million per year in program funding for the NSHP.
20 EPIC funds for NSHP would be in addition to the \$162
21 million per year identified in the CPUC's EPIC Phase Two
22 decision.

23 The total NSHP funding, including prior funding
24 and funding under EPIC would be capped at \$400 million.

25 Now, Laurie will continue to discuss Chapters 7

1 and 8.

2 MS. TEN HOPE: So, Chapters 7 and 8 are the
3 program administration slides and we have provided some
4 detail on the recommended selection criteria, including
5 a preference for a competitive process. And we've
6 proposed that that apply to both public and private
7 applicants but they would be principally by grant
8 awards.

9 We did not propose any incentive or pay-for-
10 performance type agreements except, perhaps, under NSHP,
11 which is an incentive-based program. The rest of the
12 projects are envisioned as grants or contracts.

13 We proposed selection criteria that basically
14 scores administrative costs and have come up with a
15 template for that.

16 We're interested in maximizing in-state
17 investments through the solicitation selection criteria.
18 We suggest that this is best done by a combination of
19 minimum requirements and then scoring preferences over
20 that.

21 Because in some cases, particularly if you're
22 looking at a technology demonstration project, your
23 highest cost might be equipment and that equipment might
24 only be available out of state and could preclude
25 bringing, you know, innovative technologies in and

1 testing them within the State, and getting some real-
2 life experience.

3 So, we think it's important to have criteria
4 that really rewards in-state entities and, you know, in-
5 state research, but be a little bit flexible in setting
6 that as a criteria, as opposed to a full requirement
7 that 100 percent be spent in the State.

8 We are very interested in providing a set aside
9 for federal match. We've found that with the economic
10 stimulus funds it was very helpful to have some
11 California funds available for applications that were
12 consistent with the State's policy goals and the funding
13 sources.

14 Some of the ARRA match funding requests went to
15 the CPUC and some came to the Energy Commission. That
16 really helped California entities bring federal funds
17 here for smart grid and other activities.

18 So, we would like to provide a set aside. One
19 of our questions is how much? And it's also -- you
20 know, if you have suggestions on the mechanics, if we're
21 setting aside at this point for something that's unknown
22 in the future, can that money be reallocated to other
23 areas within the plan should strong proposals not
24 materialize for the full funding amount.

25 So, it is an area that you'll see and the

1 Investment Plan has dollar amounts XX, so we're looking
2 for some advice there.

3 And we think it's critical to coordinate with
4 other RD&D efforts. We have ongoing relationships with
5 Department of Energy. Our Chairman is reaching out for
6 high level coordination with Department of Energy and,
7 of course, our research institutions, utilities and
8 private sector investments in this area.

9 So, we want that reflected now in the Investment
10 Plan, but put the mechanisms in place that the
11 coordination continues throughout the implementation of
12 the program.

13 Okay, we've establishes some questions that we
14 thought would be particularly helpful. You're not
15 wedded to these questions, if you have other comments
16 for the plan.

17 But the first are around scope. You know, are
18 the proposed initiatives the right initiatives? Should
19 some be dropped so that we focus more on what you might
20 consider the highest priorities, indicate which
21 initiatives and why?

22 Are there critical initiatives missing? And if
23 you think so, would you be so kind as to fill out the
24 template so we'd have a little bit more information on
25 how you see that initiative fitting and what the

1 ratepayer benefits are and, you know, what body of
2 knowledge that initiative is building on?

3 Again, if the scope is too narrow or too broad
4 in initiatives, we'd like to hear that.

5 And also, the balance of technologies that --
6 you know, we've assessed what we think the technologies
7 are that need new innovation versus those that need
8 scale-up. If you think that you have a different view
9 on that, we would welcome that comment as well.

10 Next is, in addition to program scope, funding
11 priorities. Today gave a first shop at funding by
12 policy areas, we will be providing another level down in
13 our final submittal and so comments on what strategic
14 objectives deserve the greatest amount of funding to
15 bring the highest benefit back.

16 Project match funding; this is the match funding
17 within the projects where you saw a target for the
18 requirements in market facilitation, TD&D and applied
19 research. Is that the right requirement?

20 And as well as -- sorry, I thought the federal
21 funding was next.

22 We have two of the same question. Oh, number
23 four is the match funding priority. So, again, I
24 already went over this. What do you think the minimum
25 and maximum amount of funds should be for the federal

1 funds?

2 Intellectual property; we've put forward a
3 strategy for intellectual property and it's trying to
4 balance between encouraging innovation so that people
5 will apply for the funding, and utilize the funds and
6 bring innovation to market, and while also returning
7 applicable benefits to the ratepayer.

8 We're interested in feedback on an advisory
9 structure. That would be one way to maintain ongoing
10 communication with stakeholder, and community, and
11 different consumer, and environmental organizations,
12 research organizations that we continue to stay focused
13 on the highest priorities and we're not duplicative, and
14 people who could use the research results are aware of
15 it.

16 So, we ask a question about structure and
17 elements that would be important and, also, elements of
18 what kind of coordination is most desirable between the
19 four administrators?

20 Finally, an open question on other comments that
21 you think would strengthen the plan?

22 This is the template for the Investment Plan
23 Initiative.

24 And we can move on to next steps. We would
25 really ask that you submit your comments by October 1st

1 so we can review all your comments and incorporate them
2 in the next draft. You can send your comments
3 electronically to the docket or mail a paper copy.

4 And with that, I would open it for questions
5 from the dais and then the audience for -- do you want
6 to do clarifying questions and then do public comment
7 after?

8 CHAIRPERSON WEISENMILLER: Yeah, what I wanted
9 to do was, first, let's start with questions from the
10 dais, then clarifying questions from the room, and then
11 go to public comment.

12 In terms of the public comment, I don't know if
13 people have gotten the blue cards, but that would be
14 the -- if we could pass those out and collect those,
15 that would organize that somewhat.

16 And the other question for you, Laurie, is on
17 the public comments whether we want to structure those
18 by area or general?

19 But again, I'll warn people that you have three
20 minutes for public comment, so that will probably
21 encourage you to focus your comments here on the key
22 points but then, certainly, do written comments more
23 generally.

24 MS. TEN HOPE: Okay.

25 CHAIRPERSON WEISENMILLER: So, with that let me

1 start out with a couple of questions for you. I'll at
2 least ask you to talk about a couple of things for
3 people.

4 One is, obviously, in the legislative review
5 process and since then with the various audits we've had
6 there's a lot of focus from the State on royalties.
7 And, obviously, we felt we could not include those here.
8 Will you explain that to people?

9 MS. TEN HOPE: Okay. I'm not an attorney, but
10 we have special legislative authority to collect
11 royalties within the Public Interest Energy Research
12 Program and there's -- without some legislative
13 authority we would not have that authority in the EPIC
14 program.

15 Now, of course, legislation could be passed to
16 change that so that's basically the reason that there
17 isn't a recommendation for royalties within the plan.

18 And I don't see Alan Ward, he's welcome to
19 correct me, if he so chooses.

20 CHAIRPERSON WEISENMILLER: Yeah, and I don't
21 know, it's a question for the PUC of whether there's any
22 way you could structure that. But at least at this
23 point, as I said, under existing statute we have a way
24 to do royalties and under the decision of -- at least
25 our current opinion is we can't. But, certainly, we'd

1 welcome any creativity on how to collect royalties.

2 The other thing, Laurie, would you talk about
3 the opportunity for multi-year contracts?

4 MS. TEN HOPE: Yes, I think that in some
5 cases -- well, multi-year in terms of multi-year funding
6 and also contracts that would extend over multi-year, I
7 think you're referring to both.

8 So, we would envision a lot of projects,
9 actually, would extend over more than one year,
10 particularly demonstration projects. And some, we would
11 be interested in also doing a solicitation for research
12 centers that are key areas of development, technology
13 development and industry partnerships.

14 And in those cases we think it would
15 particularly make sense to do sustained funding over
16 multiple years.

17 COMMISSIONER MC ALLISTER: Just a quick
18 question, I'm really mostly interested in hearing what
19 all of you have to say in the room here.

20 But I guess on the match issue is there any
21 background information that you could offer about -- you
22 know, I assume the ARRA level of funding is not going to
23 happen again. But do you have kind of a ballpark idea
24 of what those potential federal resources might look
25 like or is it kind of a gross estimation at this point?

1 MS. TEN HOPE: It's challenging because,
2 typically, Department of Energy, Department of Defense
3 don't release their solicitation plans in advance. So,
4 targeting what solicitations are expected in what topic
5 areas is difficult.

6 But that's, you know, part of the partnership
7 building that we're working on now is to really look at
8 how we don't just coordinate after projects, but we have
9 a better look ahead at where each other's programs are
10 going so we can be more definitive about what those
11 opportunities are.

12 But even then, even knowing that it would be
13 difficult to know what strong proposals are coming
14 forward, how much competition there is for proposals, so
15 there is a fair amount of uncertainty.

16 CHAIRPERSON WEISENMILLER: Okay, so in terms of
17 if anyone in the audience has clarifying questions,
18 would you line up by the dais?

19 Again, these are clarifying questions as opposed
20 to comments.

21 Introduce yourself for the court reporter.

22 MR. HOWLETT: I'm Owen Howlett with the Energy
23 Commission's --

24 CHAIRPERSON WEISENMILLER: The green button.

25 MR. HOWLETT: Oh, okay, Owen Howlett with the

1 Energy Commission's Codes and Standards Office.

2 In the description you use the word pre-
3 commercial for the technologies that you're interested
4 in funding for applied R&D and for the demonstration
5 projects.

6 When we look at adopting technologies and
7 approaches into the codes and standards, we're mainly
8 looking at things which are already commercially
9 available. So, I wanted to ask about the definition of
10 pre-commercial. Do you mean things that are not
11 commercially available, or do you mean things that are
12 not yet mass market, or what's your intention?

13 MS. TEN HOPE: Well, it's -- I mean something
14 could be commercially available but not cost
15 competitive, and there may be more research needed to
16 make the technologies more cost competitive.

17 We would consider that type of research
18 activity.

19 MR. HOWLETT: Okay, we're looking mainly at
20 trying to figure out where existing technologies work
21 well and where they don't work well, so it's more of an
22 application-based research.

23 MS. TEN HOPE: Uh-hum.

24 MR. HOWLETT: And like I said, we're dealing
25 mainly with technologies that already exist and, in some

1 cases, have been available for years. So, I think we'd
2 want to maybe discuss with you what pre-commercial
3 means.

4 MS. TEN HOPE: Okay, and maybe provide some
5 examples. Because, you know, research on applications
6 could be within scope.

7 Incentives for wide mass market, we really don't
8 see in scope given other program emphasis.

9 CHAIRPERSON WEISENMILLER: Okay, again, if you
10 have written comments for clarification, please submit
11 those for the record.

12 Any other clarifying questions?

13 MR. GRAVELY: This is Mike Gravely from the R&D
14 Division. I just want to provide a little clarification
15 on the federal cost share because we have had companies
16 come to us and say is there -- there's an opportunity
17 for them to bring business to California but they need
18 help in getting the cost share.

19 So, the question for the audience today helps us
20 understand, you know, should we have kind of an open
21 solicitation where people can apply? We know that
22 there's always opportunities but, typically, as Laurie
23 mentioned, we don't get enough lead time to know way in
24 advance. We typically have maybe two or three months,
25 or three months, or two or three weeks' notice that they

1 are doing this.

2 So, the question that's been asked for us many
3 times, some of the other states do provide this type of
4 incentive on certain areas in federal government, so the
5 question would be is there a value for us to having this
6 federal cost share opportunity? And then, also, what
7 would be the scope? And then, also, just want the
8 interest is?

9 Because I think the answer to your question is,
10 you know, ARRA was a big process but there are many
11 projects and the federal government does provide
12 opportunity and we typically respond at a very short
13 time.

14 And we consider this as an area where we might
15 provide an opportunity for California business to be
16 able to compete more aggressively into federal awards by
17 coming to us for this type of opportunity.

18 So, for the group today our interest would be
19 what is the public interest and the interest of the
20 companies that are here today about having that
21 opportunity to apply for, through some type of open
22 solicitation, to apply for matched funds that would
23 allow them to then apply for a federal grant?

24 CHAIRPERSON WEISENMILLER: Thanks, Mike. I mean
25 one of the things to be clear is, again, we're looking

1 for a competitive process so that we can try to
2 understand the opportunities there.

3 And, obviously, a lot of times, I know talking
4 to the RP people, they will hire someone within six
5 months and put the money out the door.

6 So, it's often not anything that's easy to
7 identify, the coming opportunities, but we want to be
8 sure that if we do provide that sort of match there's a
9 way to do that competitive process. Thank you.

10 MS. QUINN: Hello Commissioners, I'm Colleen
11 Quinn with Coulomb Technologies.

12 And I just wanted to add, actually, more
13 clarification. I just spent two days in Washington, the
14 DOE has just hosted two days of what they called a --
15 they're putting out an action plan addressing the
16 electricity distribution system.

17 But it's all about, essentially, they're taking
18 the Office of Electricity and also the EERE group and
19 they've merged them together to really -- to state the
20 R&D priorities going forward for all the renewable
21 technologies in the U.S. and how they can integrate them
22 into the grid.

23 I represented, I was pleased to have the
24 opportunity to represent EV -- you know, part of the EV
25 industry. GM was there as well. EVs are also going to

1 be part of this process.

2 What I wanted you to know is I think the timing
3 is very good and that they are also trying to coordinate
4 their efforts.

5 They don't have a timeline or specific, you
6 know, request for proposals out, yet.

7 But the timing, and I suggest that you all, and
8 I can give contacts to the staff on who at DOE is
9 actually leading this effort.

10 But it's a very comprehensive look. The money
11 has not yet been identified. They don't know whether
12 there's going to be new money, right, because Congress
13 is in the works.

14 But it may also prioritize their existing
15 funding.

16 CHAIRPERSON WEISENMILLER: Okay, thank you for
17 that information. Certainly, if you can get the
18 contacts to the staff, we're trying to complement as
19 opposed to overlap with the federal funding, so that
20 would be good.

21 MS. QUINN: Absolutely, yeah.

22 CHAIRPERSON WEISENMILLER: Thanks. Any other
23 clarifying questions in the room?

24 How about on the line?

25 So, great job, Laurie. Let's go on to start

1 taking public comments.

2 Let's start with Holly Wyer, from the State
3 Lands Commission.

4 MS. WYER: Good morning and thank you for the
5 opportunity to provide comment on the draft EPIC
6 Investment Plan.

7 My name is Holly Wyer and I'm a Sea Grant Fellow
8 with the California State Lands Commission.

9 I'm here to provide joint comments from the
10 State Lands Commission staff and Ocean Potential Council
11 staff regarding marine renewable energy and the EPIC
12 Investment Plan.

13 In addition to my comments today we will be
14 sending you a joint comment letter by the deadline of
15 October 1st.

16 In general, the State Lands Commission and Ocean
17 Protection Council staff are supportive of the draft
18 EPIC Investment Plan and the proposed funding
19 initiatives to support marine renewable energy
20 development.

21 We are supportive of the funding initiatives to
22 investigate the economic, environmental and
23 technological barriers to offshore wind and wave energy
24 in California, as well as the initiative to develop
25 analytic tools and technologies to reduce energy

1 stresses on aquatic resources and improve water energy
2 management.

3 Both wind developers and wave energy developers
4 have express interest in testing their technologies
5 in California.

6 However, as you mentioned in the draft
7 Investment Plan, permitting, as well as knowledge
8 surrounding potential environmental impact from emerging
9 technologies have been identified in the --

10 COMMISSIONER PETERMAN: Can you slow down just a
11 little bit?

12 MS. WYER: Sure.

13 COMMISSIONER PETERMAN: Thank you. I want to
14 make sure I really hear this.

15 MS. WYER: As you mentioned in the draft
16 Investment Plan, permitting, as well as knowledge
17 surrounding potential environmental impacts from
18 emerging technologies have been identified as a few of
19 the barriers to the advancement of marine renewable
20 energy.

21 Funding these three initiatives would help
22 overcome these barriers and build upon current and
23 previous work undertaken by the State Land Commission
24 and Ocean Protection Council staffs.

25 We also support the initiative to develop

1 demonstration testing and verification centers. Many
2 marine renewable energy technologies are in the testing
3 phase and would use the testing and verification center,
4 if available in California.

5 The State has a number of resources in its
6 university systems for facilities, marine engineering
7 and scientific expertise, and military resources to
8 support the development of a test center.

9 Finally, we are supportive of the initiative to
10 provide cost share for federal awards.

11 As you mentioned, the Department of Energy and
12 Department of Defense both provide opportunities through
13 grants to advance marine renewable energy in California.

14 Using the EPIC program, as a cost share
15 opportunity, will leverage additional funding for marine
16 renewable energy development and will make California
17 more competitive when applying for federal funding.

18 Thank you again for the opportunity to comment
19 and I will look forward to reading the revised
20 Investment Plan.

21 CHAIRPERSON WEISENMILLER: Yeah, thank you for
22 being here. I was going to suggest that you participate
23 in -- I don't know if you are participating in the REAT
24 Agency discussions.

25 Certainly the Department of Defense, both the

1 Air Force and Navy, have expressed concerns about
2 offshore facilities in terms of potentially interfering
3 with some of their stealth testing.

4 COMMISSIONER PETERMAN: So, that's the Renewable
5 Energy Action Team.

6 MS. WYER: Okay, thank you.

7 CHAIRPERSON WEISENMILLER: It's the joint state
8 and federal agencies. So, it would be good to be part
9 of that conversation.

10 MS. WYER: That sounds great, thank you.

11 COMMISSIONER PETERMAN: And you can reach out to
12 our offices if you need more information on how to do
13 that.

14 MS. WYER: Okay, thank you.

15 CHAIRPERSON WEISENMILLER: I think in terms of
16 agencies, I believe you're the only agency here, so I'm
17 going to take you first.

18 In terms of other parties, I guess the first
19 question is if there's anyone that, you know, will not
20 be available after lunch, certainly I'd be happy to sort
21 of take them out of turn. With the notion if you do go
22 forward, please don't show up at 4:00 o'clock saying you
23 want a second bite of the apple. This is just your one
24 shot.

25 But anyway, if anyone has a scheduling

1 constraint -- sure, why don't you introduce yourself?

2 MR. LYTE: Yes, my name is William Lyte. I'm
3 with Protean North America, which is a wave energy firm.

4 In general, I support the comments of the
5 California State Lands Commission. I've been on a
6 California State and Federal working group for the last
7 ten years, the California Marine Intermodal
8 Transportation System Advisory Council, representing all
9 of California's engineering firms.

10 And we are all very excited, around the world
11 actually, about the EPIC program. And so to help
12 implement that we are building the kinds of
13 collaborations with the California State University
14 system, the community colleges, and already with the
15 U.S. Navy and Department of Energy.

16 We're focusing those on innovation clusters
17 which was identified in the plan. I'm speaking on that
18 subject at a California State Lands Commission program
19 on October 26th.

20 We certainly can bring the matching funds to the
21 table.

22 And I would also like to support the water and
23 energy management aspects of this because that's what
24 helps fund the California State University research
25 activities that fully evaluate these wave and offshore

1 wind programs. It provides the funding for them.

2 So, thank you very much for this opportunity.

3 COMMISSIONER PETERMAN: Sir, a quick question
4 for you. Can you say the name, again, of the working
5 group?

6 MR. LYTE: Oh, the working group I'm on is the
7 California Marine and Intermodal Transportation System
8 Advisory Council, it's called --

9 COMMISSIONER PETERMAN: I got the intermodal and
10 then --

11 MR. LYTE: It's managed out of State Senator
12 Lowenthal's office.

13 COMMISSIONER PETERMAN: Thank you.

14 MR. LYTE: Thank you.

15 CHAIRPERSON WEISENMILLER: Okay, no one else,
16 Bob Raymer, you want to go next?

17 MR. RAYMER: Thank you Mr. Chairman,
18 Commissioners; I'm Bob Raymer, representing the
19 California Building Industry Association.

20 And as you well know, CBI is in strong support
21 of the New Solar Home Partnership Program.

22 In terms of background, California's housing
23 sector is slowly rebounding from the worst economic
24 downturn in 60 years.

25 We hit rock bottom in 2009, producing 36,000

1 units that year. That's combined multi-family with
2 single family, and that puts us at about 19 percent of
3 normal.

4 And while we're slowly rebounding, 2010 and 2011
5 proved to be the second and third worst years in record,
6 and it looks like 2013 will be in line to be the fourth
7 worst year. So, we're coming out of it very slowly, but
8 we're still in that area of making records and that's
9 not a place that we want to be and, hopefully, we'll be
10 moving out of that.

11 In terms of the labor market, between 2004 and
12 2009 the building industry lost about 80 percent of its
13 workforce.

14 That brings us to today's subject, the New Solar
15 Home Partnership. As the housing sector slowly climbs
16 out of the worst downturn in 60 years, the New Solar
17 Home Partnership has proven to be one of the bright
18 spots.

19 It has allowed production-style builders to
20 incorporate solar as a standard feature on entry-level
21 housing and both of these points deserve repeating.

22 Entry-level housing is the primary focus of the
23 production building industry right now and for the near
24 future. Given the extremely tight lending rules in
25 place right now, coupled with the fact that lending

1 institutions want large down payments, in the range of
2 10 to 20 percent, production-style builders have zeroed
3 in on the entry-level housing market as their primary
4 target.

5 And major builder companies, as you well know,
6 are now installing solar on 100 percent of their homes
7 as a standard feature, as opposed to offering it as a
8 design option.

9 Offering it as a design option might result in a
10 market penetration of about four to five percent, given
11 past practice, as opposed to the 100 percent level that
12 we're seeing now.

13 The striking change in construction design has
14 created a problem for the CED in that the New Solar Home
15 Partnership has become an enormous success in a
16 relatively short period of time and has put a lot of
17 stress on your financing.

18 We have seen extraordinary growth in the past 18
19 months and that leads us to a few concerns. The
20 reliability of the program is incredibly important for
21 the short term and I'm talking about, particularly, 2013
22 and 2014.

23 As production builders, who are looking at doing
24 hundreds, perhaps thousands of homes in the coming
25 three- to four-year period, they're looking at their

1 design constraints right now. They're making the
2 decisions today of what those homes will have in them
3 tomorrow in terms of standard features or what they may
4 be offering as design options.

5 The availability and reliability of the New
6 Solar Home Partnership has allowed them to effectively
7 assume a financing package that utilizes this fund as a
8 key leverage.

9 And with that, I'd also indicate a concern, the
10 average that you're looking at, \$25 million for the
11 years 2013-2014, we'll be using all of that. And for
12 whatever that's worth, if that's the money that's going
13 to be there, we will utilize that.

14 Any questions?

15 COMMISSIONER PETERMAN: I have a follow-up
16 question or two, Mr. Raymer. Your last comment about
17 all the funding, you know, will be used, what are the
18 estimates of the need as you see it, I know you've been
19 talking to the various builders and the home companies,
20 over the next couple of years for this program?

21 MR. RAYMER: Well, on a positive note we, once
22 again, will be very supportive of seeking the repayment
23 from the Legislature. I think there's \$95 million out
24 there, of which about two-thirds would be coming back by
25 June of 2013.

1 But as you well know, under the budget
2 circumstances that we find ourselves, the fact that it's
3 supposed to come back and the fact that it will come
4 back may be two different things.

5 So, we'll be supportive of that. But as far as
6 the industry's needs, we're probably looking at an
7 increase of overall production in the range of two to
8 five percent per year. That's sort of a very slow
9 emergence.

10 But in terms of 2012 we did about -- we're doing
11 about 25,000 single-family homes which is, of course,
12 the primary market here.

13 That will probably raise to about 30 to 35
14 thousand by 2014.

15 We're not going to be back to normal production
16 until 2017. And so, as the Governor's indicated in a
17 couple of his speeches relative to the budget,
18 employment normalcy will probably be the last quarter of
19 2016.

20 That being said, \$25 million a year, I don't
21 want to say it -- it's not a small amount, but the fact
22 here is that right now there's such enormous interest in
23 this program I'd have to say we'll use every penny of
24 that, without question.

25 COMMISSIONER PETERMAN: Thank you.

1 CHAIRPERSON WEISENMILLER: Okay, Laurie, do you
2 want to clarify the footnote you had on New Solar Home
3 Funding, just to make that clear for people?

4 MS. TEN HOPE: I'll leave that to Pam.

5 CHAIRPERSON WEISENMILLER: To Pam, sure.

6 MS. DOUGHMAN: Oh, the repayment?

7 CHAIRPERSON WEISENMILLER: Yes.

8 MS. DOUGHMAN: Oh, okay. So, in the Investment
9 Plan we describe that if we receive repayment of the
10 outstanding loans and that then the money that would
11 come from EPIC will not be needed and will be adjusted
12 accordingly.

13 COMMISSIONER PETERMAN: I'll just also add the
14 comment that we received a loan repayment in June, of
15 \$25 million. There's been, I don't have the exact
16 number in my head, but over \$150 million borrowed from
17 the ROTF fund. And faced with the general challenge of
18 not having funding within this program, and so
19 appreciate the legislative lift and the work by the
20 different agencies to find and continue opportunities to
21 fund this program.

22 But to the extent those monies are repaid, then
23 instead of the total budget concerns around EPIC, the
24 request would be for less coming out of EPIC if those
25 other monies are available.

1 And for those who are interested in seeing more
2 about this program, it is an active program at the
3 Energy Commission. There's a website, a list serve you
4 can become active in and we'll be moving forward, as
5 part of that program, to do some workshops later this
6 year just in terms of looking at where the industry is
7 now.

8 As Mr. Raymer's noted, we've received a lot of
9 public comment on that program about new business
10 models, builders' interest, and we want to make sure
11 that the program design really captures the need, so
12 stay tuned for that.

13 CHAIRPERSON WEISENMILLER: Okay, Mr. Boccadoro?

14 MR. BOCCADORO: Good morning Commissioners,
15 Michael Boccadoro on behalf of the Agricultural Energy
16 Consumers Association, today.

17 Let me start by thanking CEC staff for an
18 excellent product and a first draft. Obviously, a lot
19 of hard work has gone into this and much more is going
20 to be necessary as we finalize a plan.

21 I wanted to focus some comments today on
22 bioenergy. It's an exciting time for bioenergy,
23 frankly. The release of the Bioenergy Action Plan a few
24 weeks ago, and last night's signing of Senate Bill 1122,
25 Rubio, which provides a 250 megawatt procurement program

1 for bioenergy in California, as well as the signing of
2 1900 and 2196 to, hopefully, remove some of the issues
3 related to biomethane injection.

4 Getting back to the proposal before us though
5 today, let me focus a couple of points. Interconnection
6 issues remain a very, very significant problem for small
7 community-scale bioenergy projects. I'm not convinced
8 it's just bioenergy, but for small projects in general
9 that we're really seeing an impact from interconnection
10 issues with bioenergy projects in California, currently.

11 I'd suggest to you that they're even more
12 significant than permitting issues in the State
13 regarding these projects. We can get them permitted,
14 only to find that we run into interconnection issues
15 that are precluding them from being built, cost mostly.

16 We strongly recommend that in addition to
17 permitting and regulatory streamlining in the Market
18 Facilitation Program that we add interconnection
19 streamlining and facilitation. We think that's a
20 particular area where the Commission can be helpful on
21 bioenergy projects moving forward.

22 I wanted to touch briefly on the pre-commercial
23 conversation that occurred a few moments ago and this
24 issue of what is pre-commercial. We're very aware of
25 the cost-competitive issue.

1 It's not just research that will bring down the
2 cost of bioenergy projects in California. I'd argue
3 that a bigger piece of the equation is actually
4 experience.

5 One of the biggest cost drivers for bioenergy
6 projects in California right now is capital costs. And
7 those are only going to come down when the uncertainty
8 about getting these projects built and operational, and
9 keeping them operational in California has been
10 resolved.

11 And so financing uncertainty drives those costs
12 of capital and so we really need to focus on, actually,
13 not just doing additional research, but actually get
14 projects built and operational in the State.

15 I think that's a good prelude to the next point,
16 which is in signing 1122, one of the provisions in that
17 legislation would require that the agencies in the
18 State, that have jurisdiction over bioenergy, including
19 this Commission and the CPUC, as well as others, to
20 coordinate, to the maximum extent feasible, the
21 subsidies that are being provided as part of the 1122
22 procurement program.

23 So, we would like to very much work with the
24 Commission and the CPUC moving forward to find ways to
25 maximize the facilitation of any funding under EPIC that

1 is being provided to bioenergy projects going forward,
2 so that we're achieving true ratepayer benefits by
3 providing subsidies to the projects that are going to
4 get -- get contracts, excuse me. Under 1122 we'd be
5 directly reducing ratepayer costs and I think that's a
6 very important intent of the Legislature when they
7 passed 1122.

8 And then, finally, the plan should clarify that
9 the CPUC decision requires a minimum of 20 percent for
10 bioenergy in the technology demonstration and deployment
11 category.

12 It could be read in the current draft that it's
13 a maximum of 20 percent. And I think it was the intent
14 that that be a minimum by the CPUC.

15 We have a number of technical points that we'll
16 also be submitting in writing, given the short time
17 frame.

18 I very much appreciate the opportunity and we
19 look forward to working with you to get bioenergy going
20 in California. Thank you.

21 CHAIRPERSON WEISENMILLER: Thanks. Any
22 questions?

23 Peter Miller, NRDC.

24 MR. MILLER: Peter Miller for NRDC and thanks
25 for the opportunity to comment today.

1 I wanted to just start by voicing our support
2 for this initiative, for R&D in general and for this
3 initiative in particular. It is so essential.

4 I didn't bring my pom-poms today, but it is
5 really exciting and important for the State to have --
6 for this initiative be underway.

7 I want to express an appreciation for the CPUC
8 for their work in getting the program where it is today.
9 And I note the importance of the collaboration between
10 the two agencies, and the effective collaboration.

11 It's a substantial administrative transition
12 from the PIER Program to EPIC and it's run pretty
13 smoothly and on time, and I think that's something to be
14 noted.

15 I wanted to highlight what I think is the top
16 problem that we'll face going forward and that's the
17 abundance of opportunities.

18 It's what you might call the Mother's Day buffet
19 problem, where you walk in and there's endless items to
20 choose from. And you certainly want some of the crab,
21 and you want some of the eggs benedict, and you
22 definitely want to leave room for the dessert buffet.
23 But it's hard to choose and prioritize.

24 And being effective is going to require a
25 balance between focus and flexibility.

1 I think the number one solution to deal with
2 that problem is having an open, public process, with
3 lots of input from stakeholders and agencies, and
4 entities that care about this program, and they're going
5 to have to implement the technologies.

6 And I think the bywords are going to have to be
7 collaborative, synergistic, and connected. I think
8 that's going to be critical.

9 I will note, and I want to give a shout out to
10 your Deputy Director Laurie ten Hope, who, in her tenure
11 on this program, has done a fabulous job of doing just
12 that, of staying connected to stakeholders, to the
13 Legislature, to the utilities, and to industry.

14 I think there's a real value in having a strong
15 advisory group. An advisory group, not a decision-
16 making body, but a group of stakeholders that can have
17 that important information flow which needs to go both
18 ways; both stakeholders saying, hey, these are where the
19 areas are that you have to focus on, that they're
20 important to us, that represent the problems we're
21 facing in the energy sector, but also as a way for the
22 program to communicate back out to those entities.

23 Hey, we got this new technology we just brought
24 out, can you try it out? We're doing good things,
25 letting the Legislature know all the successes that this

1 program is able to achieve.

2 So, a strong vote of support for the Advisory
3 Group, I thought there was a pretty good structure in
4 place recently, and I want to encourage that to be
5 revitalized.

6 I want to highlight a couple of items. We'll
7 submit more detailed comments, but I want to note that
8 we have strong support for the research on environmental
9 impacts, both adaptation and mitigation of those
10 impacts, particularly on climate change.

11 I like the idea of a federal match, I think
12 that's a great way to help lead Washington and provide
13 some leadership with DOE.

14 And note that the Energy Innovation Small Grants
15 Program, which was a feature of the PIER program, I
16 thought was a great program and a good way to use money
17 effectively to feed the pipeline. Thank you.

18 CHAIRPERSON WEISENMILLER: Well, thank you. We
19 certainly want to express our appreciation for NRDC's
20 efforts in getting this to where we are today. You've
21 certainly been a key player with us all the way through,
22 obviously, the PGC debate and, now, in the development
23 of EPIC. So, we certainly appreciate that.

24 And we certainly agree that one of the things we
25 were trying to deal with is not spreading the peanut

1 butter too thin, but trying to find those high priority
2 areas where you can get some payoff.

3 And, of course, everyone has different sense of
4 which those are. But certainly appreciate NRDC's
5 thoughts on those priorities.

6 MR. MILLER: Thank you.

7 COMMISSIONER PETERMAN: I'll just agree that,
8 you know, it's a very comprehensive plan that lays out
9 the scope of all the different activities that one could
10 work on. You know, but like a menu you have to figure
11 out what to eat first, and so we appreciate some
12 feedback on that.

13 COMMISSIONER MC ALLISTER: I meant to say this
14 before and I will just reiterate what you said that I
15 think it's a great opportunity and it's going really
16 well for collaboration between the two agencies. I mean
17 the PUC and the Energy Commission have very
18 complementary activities and viewpoints, and I think
19 it's just fabulous that we have, now, this sort of
20 platform to collaborate much more explicitly on and come
21 up with -- you know, ensure that we're all aligned on
22 what the sort of purpose and goals are behind all this.
23 So, it's a great opportunity and thanks to Andy for
24 representing that.

25 MR. MILLER: Thank you.

1 CHAIRPERSON WEISENMILLER: Alex Leumer, Nature
2 Conservancy.

3 MS. LEUMER: So, Alex Leumer from the Nature
4 Conservancy. Thank you very much for this opportunity
5 to provide comments and I definitely want to echo
6 Peter's comments, as well.

7 The Nature Conservancy strongly supports the
8 proposed Investment Plan, specifically the funding
9 initiative 5.4 to develop tools and technologies to plan
10 for and minimize the impacts of climate change on the
11 electricity system.

12 In the past, the PIER Program has been critical
13 to addressing issues related to the demand, supply,
14 transmission and reliability of power, as well as cost
15 containment and general well-being of ratepayers.

16 Understanding these characteristics of the
17 energy system is critical to helping the State develop
18 policies that provide for ratepayer protections,
19 effective alternatives, adaptive management and a safe,
20 reliable energy system.

21 To this end, EPIC research funds should focus on
22 the barriers and basic conditions that influence siting,
23 energy consumption, generation and demand patterns,
24 local State and federal permit conditions, general
25 location capacity, and power interruption instability.

1 As well noted in the draft plan, California's
2 electricity system is highly vulnerable to climate
3 change and extreme events.

4 The workshop held here on April 30th, entitled
5 "California's Energy System Prepares for Climate
6 Change," highlighted a number of PIER-funded studies
7 that demonstrated how climate change is affecting and
8 will have an ever greater effect on the State's energy
9 system.

10 The third assessment from the California Climate
11 Change Center, entitled "Our Changing Climate 2012,"
12 described specific threats posed to California's energy
13 system from climate change, such as increased energy
14 demand, increased vulnerability of hydro-powered
15 facilities, and the vulnerability of the electricity
16 transmission corridors.

17 The plan states this ongoing evolution of our
18 energy system should be guided with information that
19 facilitates the creation of a more climate resilient
20 energy system. And it well notes that it's unlikely
21 that programs, other than EPIC, would provide -- would
22 be able to generate this critical scientific and
23 engineering research.

24 Given the emerging climate-driven threats to
25 California's energy system, the State must continue to

1 fund and prioritize scientific research to analyze the
2 impacts of California's energy generation consumption on
3 its environment and ratepayers.

4 We, therefore, strongly urge the CEC to adopt
5 the proposed funding initiative 5.4, and we'll be
6 providing written comments as well.

7 So, thank you very much for this opportunity.

8 CHAIRPERSON WEISENMILLER: Thank you. Thank
9 you.

10 Todd Maki, from EPRI.

11 MR. MAKI: Hi, Todd Maki with the EPRI, Electric
12 Power Research Institute.

13 First of all, I want to thank you for the
14 opportunity to provide comments.

15 And second of all, I want to commend the CEC on
16 the excellent job well done putting together an
17 Investment Plan under such a short timeline. I
18 understand the IOUs and the CEC are both under quite the
19 crunch. And I think you did a quite -- a good job in
20 putting together a thorough Investment Plan and setting
21 forth a strategy for this first funding.

22 I want to focus my comments on appreciating,
23 first of all, the emphasis on minimizing the amount of
24 duplication in R&D that these funds will go to, and as
25 well as maximizing the amount of leverage that these

1 funds can provide to activities that are already going
2 on both nationally, in the U.S., as well as
3 internationally.

4 The technical issues that the California energy
5 system and the California IOUs face are common across or
6 similar to those that are faced throughout the country
7 and throughout the world.

8 So, it's of critical importance that the issues
9 of clean energy, energy efficiency, demand response, and
10 cross-cutting technologies, like smart grids or other
11 issues that are funded through the California EPIC
12 Program and, particularly, with the applied R&D funds
13 are invested in areas that are building on top of the
14 progress that's already been made, whether it be it in
15 California collaborations, or national collaborations,
16 or international.

17 And it's also important that not only are we
18 building on top of the foundation that's already been
19 established, but the stakeholders in California, so the
20 Energy Commission, as well as the three IOUs, are able
21 to actively participate in those collaborations.

22 So, this is a suggestion, and recommendation and
23 encouragement for the California Energy Commission to
24 really emphasize not only the funding leverage, but also
25 the collaborative participation of both its own

1 employees and members, but also of bringing along the
2 investor-owned utilities as partners in those
3 collaborations, as well.

4 In the EPIC framework we all know the California
5 Energy Commission has the entire applied R&D portion, so
6 I think it's important to make sure that as part of the
7 collaborative process between the CEC and the IOUs that
8 there's a dedicated, I guess, process or opportunity for
9 the IOUs to engage directly in some of that applied R&D
10 as well, in the areas as relevant.

11 Obviously, some of them it may or may not be
12 relevant, but in areas of the smart grid technologies,
13 energy efficiency, or demand response technologies it's
14 going to be critically important with the IOUs also
15 working alongside with the Energy Commission on some of
16 those projects and, particularly, in some of those
17 collaborations.

18 That said, again I want to commend the Energy
19 Commission on a job well done so far in the Investment
20 Plan. And on behalf of EPRI, we look forward to
21 continued collaboration with both the Energy Commission,
22 as well as the IOUs, going forward.

23 CHAIRPERSON WEISENMILLER: I was going to ask
24 Laurie, or Andy, or if any of the utilities want to
25 comment on the collaborative issues -- the collaboration

1 issues?

2 MS. TEN HOPE: I mean I think basically there's
3 an intent to collaborate. I think it's critically
4 important that we collaborate on the areas that you
5 mentioned and, you know, and beyond. I mean not just
6 applied research and the smart grid, but we're talking
7 about distributed renewables at a customer or commercial
8 site. There's, you know, collaboration with the
9 utilities and associated grid issues as well, so very
10 much our intent to do that.

11 MR. SCHWARTZ: I don't know if I really have
12 much more to add to that. I think Laurie is exactly
13 correct, and I think the comments the EPRI
14 representative were also correct that there is a
15 critically important role for the IOUs. And to the
16 extent that we'll be evaluating or looking at new energy
17 technologies and how those will relate to their systems,
18 they're a critical partner in all of this.

19 So, throughout this process we've been
20 emphasizing the need for effective collaboration,
21 recognizing that ultimately a lot of these technologies
22 will be interconnecting to a system that is operated or
23 owned and operated by the IOUs.

24 CHAIRPERSON WEISENMILLER: And again, certainly
25 if any of the utilities want to comment on this that's

1 fine, or not, either way. You don't have to.

2 We'll move on. Okay. Andrew, okay.

3 COMMISSIONER MC ALLISTER: I would just
4 highlight I'm really impressed with the report as well,
5 or with the plan as well, and think it's a fabulous job
6 on short notice. It was really -- and Laurie and team
7 really deserve a lot of kudos for that, along with the
8 PUC counterparts.

9 I definitely appreciate the comments from the
10 EPRI representative and in particular would just
11 highlight that these demand side efforts are extremely
12 challenging.

13 And particularly, you know, bringing demand
14 response into it's kind of rightful place on the loading
15 order, or at least investigate how that might look, and
16 those deployable resources and interconnecting them all
17 really cross many, many jurisdictional, and
18 technological, and many boundaries, and on time scales
19 we've never really seen before. I think they're fairly
20 complex.

21 And so there are a couple of initiatives here,
22 particularly in strategic goal 2 that will just require
23 a lot of collaboration across agencies, and I think it's
24 a very exciting opportunity to do that.

25 You know, if you're going to get individual

1 customers access to ISO markets that's -- you know,
2 that's a short phrase that means a lot.

3 So, I think that kind of collaboration is
4 essential and really important, so thanks.

5 MS. TEN HOPE: Could I just add that I mean one
6 of the questions for follow up is the form that that
7 collaboration takes. I mean we have been talking among
8 the four administrators and we've had various forms of
9 technical advisory committees, and project advisory
10 committees, or more strategic policy advisory committees
11 in our programs in the past and I think, you know, what
12 kind of form does that collaboration take?

13 One, with the utilities, as EPRI was mentioning,
14 and with -- you know, with other interested
15 stakeholders, as Peter Miller was mentioning.

16 So, it seems that there's certainly an interest,
17 so the form, how often, who's on this, what's the scope?
18 You know, provide us some thoughts on what provides the
19 most value, specifically.

20 CHAIRPERSON WEISENMILLER: Okay, Chris Carney, a
21 Union of Concern Scientist.

22 MS. CARNEY: Hi, good morning, thank you. Chris
23 Carney, Union of Concern Scientist.

24 Thanks very much for the opportunity to comment
25 and just want to also note that to start, UCS also very

1 strongly supports the direction of the draft plan.

2 As the staff proposal notes, California leads
3 the nation on climate change research. And as we all
4 know, federal funding for climate monitoring research is
5 under continued attack, making it all the more critical
6 for California's research to continue.

7 And additionally, as the draft report also
8 notes, the need for continued research with a focus on
9 California and the west, which is critical given that
10 even when fully funded, national research efforts cannot
11 always address the unique challenges another climate
12 change presents to the State.

13 So, we strongly support the proposal to dedicate
14 resources to efforts to better understand how changing
15 climate and related extreme weather events pose threats
16 to the State's evolving electricity system and to
17 instruct our decisions for how we're going to adapt to
18 those climate impacts that are already locked in.

19 We also strongly support using EPIC research
20 funds to develop and refine tools, models and
21 simulations to enhance our energy planning to meet our
22 2050 emission reduction goals.

23 Given the time that it takes to develop specific
24 policies, as well as clean and environmentally benign
25 infrastructure and generation resources, we encourage

1 the Commission to look beyond the 2020 horizon and
2 prepare for an energy grid that can support higher
3 levels of renewables, far beyond the current 33 percent
4 mandate, as well much higher overall electricity
5 generation needs to accommodate the widespread
6 electrification of our vehicle fleet.

7 We also strongly support the use of EPIC funds
8 for technology demonstration and deployment. And we
9 believe that using the funds to help clean technologies
10 prove themselves at a commercial scale, hopefully in
11 partnership with utilities and balancing area
12 authorities to an extent that such collaborative
13 relationships break down barriers to commercial
14 deployment so that we can address a critical funding gap
15 and bring these technologies closer to market.

16 We support the strategic funding initiatives
17 identified in the draft proposal, but urge the
18 Commission to focus on defining current operational
19 challenges and deficits, rather than choosing technology
20 winners in the draft plan.

21 We strongly support the proposal to fund
22 research into the expansion of electric vehicle
23 infrastructure, including lifecycle of batteries, the
24 potential for second life storage applications, research
25 into charging technologies, and approaches to integrate

1 plug-in electric vehicles into the grid, and research
2 into the potential for vehicle-to-grid storage.

3 We also encourage the Commission to communicate
4 the activities funded through the EPIC Program to the
5 general public as much as possible. We like the idea of
6 the Advisory Committee and want to see that more fully
7 expanded.

8 You know, these broader communications will
9 enhance the public's understanding and support for
10 California's R&D investments, help avoid funding
11 duplication, and encourage collaboration with the
12 scientific community.

13 And we don't think that the 10 percent
14 administrative cap should cover outreach efforts. And
15 the outreach effort should be expanded to include at
16 least one opportunity for the CEC to present the
17 activities currently funded under EPIC in a public
18 forum.

19 And, finally, we will be submitting comments
20 which will cover the rest of our remarks.

21 Thanks very much for your time. We, again,
22 support the direction of the plan.

23 CHAIRPERSON WEISENMILLER: Great, thank you very
24 much.

25 We're at noon. We had scheduled public comments

1 at 1:00. We have in the room about eight more comments.
2 I don't know how many are on the line. So, my
3 preference would be just to keep going and, obviously,
4 we'll -- and wrap things up as opposed to taking lunch.
5 That's also consistent, I think, with Commissioner
6 McAllister at some point this afternoon, so this would
7 allow him to participate more broadly in the whole
8 thing.

9 So, anyway, that's what we're going to do. I'm
10 just going to keep marching through the comments.

11 Anyway, Carl Blumstein?

12 MR. BLUMSTEIN: I'm Carl Blumstein, I'm the
13 Director of the University of California's California
14 Institute for Energy and Environment.

15 I want to begin with kudos to Laurie ten Hope
16 and many PIER staff, and now EPIC staff in the room.
17 It's a good job and under quite constraining time
18 limits.

19 So, I do have a suggestion. I saw for the first
20 time the budget, it went by pretty fast. But I would
21 note that it didn't have a line for evaluation and I
22 think you should consider putting an exclusive line for
23 evaluation into the budget.

24 And I think that it's important for the
25 Commission to think about evaluation somewhat in a

1 different way, that it shouldn't be just trying to
2 assess benefits of the projects, it should also look at
3 process and so that you can try to establish, to some
4 extent, continuing feedback of evaluation and program
5 improvement.

6 And I know that's easier to say than it is to
7 do, but it is important to try it. And I think that you
8 have an opportunity to set aside some funds for
9 evaluation.

10 And that given the very tight constraints that
11 you have on program administration costs, which don't
12 include evaluation costs, you have an opportunity here
13 to think about doing this in a somewhat different way.
14 Thank you.

15 CHAIRPERSON WEISENMILLER: Thank you. Any
16 questions?

17 Now, Laurie, could you put that one, the fast
18 slide up for people? The more detailed budget, we might
19 as well just leave that up since people hadn't seen that
20 before.

21 MS. TEN HOPE: Rachel's going to pull it up.

22 CHAIRPERSON WEISENMILLER: Okay.

23 COMMISSIONER PETERMAN: Laurie, regarding the
24 comment just now, can you provide any more information
25 about how program evaluation is being considered?

1 MS. TEN HOPE: I welcome my market facilitation
2 team to help on this. But there's two levels, one,
3 there will be a program evaluation that's done by the
4 CPUC, periodically.

5 But I think that the market facilitation
6 includes market analysis and data collection that would
7 inform measurement and evaluation.

8 We didn't call it out specifically, but did see
9 that market facilitation was an important place to have
10 baseline information on the marketplace, the tracking of
11 the programs and feedback between the programs and
12 changes in -- basically, changes in your baseline.

13 So, I think it could be more explicit, so it's a
14 good comment for us to reflect on. It's not precluded
15 in the decision.

16 COMMISSIONER PETERMAN: Thank you. You know, I
17 appreciate that comment because in the plan we have a
18 number of things we're trying to do. We want to make
19 sure that we're correcting, self-correcting and being
20 aware, and so I appreciate looking at the plan and
21 seeing how, specifically, we can be more explicit about
22 evaluation opportunities.

23 MS. TEN HOPE: Uh-hum.

24 CHAIRPERSON WEISENMILLER: Steve Zuretti from
25 the Solar Energy Industries Association.

1 MR. ZURETTI: Good afternoon, Steve Zuretti with
2 the Solar Energy Industries Association.

3 I want to first start by saying that we support
4 the comments earlier by Bob Raymer.

5 That said I want to first thank the Commission
6 for its inclusion of funding for the New Solar Homes
7 Partnership. We were pleased to see that as part of the
8 Investment Plan.

9 The proposed funding does signal to us that the
10 Commission clearly recognizes the importance of this
11 program in achieving the goals of the California Solar
12 Initiative and the Governor's 12-gigawatt distributed
13 generation goal, and others.

14 However, I'm also here to request that the
15 annual funding levels be increased in the final plan in
16 order to comply with established statutory requirements,
17 as well as ensure that available incentives match the
18 program demand.

19 As the construction industry continues to
20 rebound, builders need confidence that a consistent,
21 transparent funding stream will be available in order to
22 both maintain the progress toward increased energy
23 efficiency and on-site solar, as well as avoid sending
24 chilling signals to the development marketplace.

25 This confidence is, however, contingent upon a

1 guarantee that the New Solar Homes Partnership will be
2 fully funded at its \$400 million total through 2016, as
3 has been previously mandated by statute.

4 However, at this point the draft plan does not
5 explain how the CEC will comply with this statutory
6 requirement.

7 The draft plan's proposed allocation of up to
8 \$25 million annually, in the event that repayments are
9 not made to the Renewable Resource Trust Fund, appears
10 to conflict with the CPUC's phase 2 decision, as well,
11 which stated the CPUC would authorize that funding for
12 the funds that had not previously been collected through
13 the Public Goods Charge, they estimated this to be about
14 \$250 million.

15 So, to comply with statutory mandates and to
16 remain consistent with the CPUC's prior decision, we
17 suggest annual funding be increased.

18 In addition, the CEC's proposed funding level is
19 not commensurate with recent demand. The draft plan
20 indicates that since 2007 the New Solar Homes
21 Partnership has issued incentive reservations at an
22 average rate of about \$24.8 million annually.

23 In 2011, however, this number was \$32 million
24 and, thus far in 2012, we've seen this number at \$40
25 million.

1 So, based on this sharp increase, SEIA believes
2 a more appropriate annual allocation would be one based
3 on 2011-2012 reservations. So, using an average annual
4 allocation that includes years in which the housing
5 market was really hurt by the mortgage crisis is not
6 truly reflective of a level that we believe will be
7 adequate going forward.

8 So with that, I just want to thank you for the
9 time to make these comments and we look forward to
10 working with the CEC further on this issue.

11 CHAIRPERSON WEISENMILLER: Thank you.
12 Questions?

13 COMMISSIONER PETERMAN: Thank you. No
14 questions, I'll just make a comment. You know, thank
15 you for your comments and, you know, report back on
16 where you see the industry.

17 I'll note that the statute, though, for New
18 Solar Homes Partnership also calls for a target of 400
19 megawatts. And as lead Commissioner on renewables, I am
20 interested in seeing how quickly we can get to that
21 target and at the least cost.

22 And for those of you who are less familiar with
23 the program, like our other incentive programs we have a
24 declining incentive schedule. So, the expectation we
25 have seen continued and, as you've noted, significant

1 even update in interest, even as the incentive has
2 declined over the last year.

3 And so we'll be looking, again, for industry and
4 for customers to have continued and increased skin in
5 the game in terms of these system costs. As solar costs
6 are coming down we expect to get more megawatts with
7 less money.

8 So, I ask that when you file your final comments
9 to keep that consideration in mind, particularly if you
10 have any information to provide how those costs are
11 coming down, as well as we go into workshops going
12 forward, about appropriate incentive levels going
13 forward that would be appreciated.

14 MR. ZURETTI: Great, I appreciate that. We'll
15 work to do that. Thank you.

16 CHAIRPERSON WEISENMILLER: Chris Murkens,
17 CALSTARTS.

18 MR. MURKENS: Hi there, my name is Chris
19 Murkens, representing CALSTARTS today.

20 First of all, again, I just want to echo the
21 thank you to the CEC staff for pulling this Investment
22 Plan together under short time constraints. We really
23 appreciate it and we're generally supportive of
24 everything in the Investment Plan.

25 My comments today are going to focus on the

1 transportation electrification sector.

2 Transportation electrification is obviously an
3 increasingly important area for R&D funding, with major
4 challenges and opportunities.

5 The ratepayer benefits in this field are
6 substantial; they include grid reliability, reduced
7 cost, and greatly improved air quality, as you know.

8 We really like the inclusion of the vehicle-to-
9 grid investments and battery reuse investments,
10 including S9 and S13. These are really valuable
11 investments and will ensure that EVs will be
12 successfully integrated into the grid in the future,
13 which we think will provide environmental benefits and
14 ratepayer benefits to Californians.

15 We're going to provide more written comments on
16 Monday, but we see a couple of areas that maybe could be
17 improved upon. The first would be strategic objective
18 9.3, which talks about vehicle electrification
19 technologies. We think there are a number of other
20 types of areas that -- under this section that could be
21 widened to include a number of other technologies. And
22 again, we'll provide more substantial comments, written
23 comments.

24 We do think there is some need for funds for
25 outreach and education to facilitate the electric

1 vehicle rollout. We see that as an area where there is
2 a lot of consumer misunderstanding, oftentimes, about
3 electric vehicles and we think that would be useful.

4 And we do see the ongoing need for vehicle buy-
5 down funding. This would help support the market,
6 itself.

7 And again, we'll provide greater written
8 comments on Monday. And again, thanks for your time.

9 COMMISSIONER PETERMAN: I'll make a comment,
10 Chris, that I appreciate, one, you being here. But two,
11 in your comments we want to make sure, again, that our
12 funding is not duplicative. So you are, of course,
13 familiar with the 118 program.

14 And if you have particular observations of
15 things that are not being funded under 118, that you
16 think are appropriate to fund during EPIC, that would be
17 appreciated.

18 MR. MURKENS: Okay, thank you.

19 CHAIRPERSON WEISENMILLER: Chuck White, Waste
20 Management.

21 MR. WHITE: Thank you very much, Commissioners;
22 Chuck White representing Waste Management.

23 Like others, I really have to give great kudos
24 to the staff for an amazing job of developing a plan
25 that we think is well structure but is reasonably

1 flexible, and allow consideration of a wide range of
2 technologies to be incentivized.

3 Two areas I'd like to talk about. One is
4 biomethane. Waste management currently generates over
5 30 megawatts of energy from landfill gas and the problem
6 we're facing is that they're coming under increasingly
7 stringent controls from the Air District, primarily
8 because of NOx and CO.

9 We think technology exists to be able to remove
10 that concern, but it's very expensive, and so we're
11 hoping that we can maintain this 30 megawatts and expand
12 this 30 megawatts in air districts like the Bay Area,
13 South Coast, and San Joaquin. And we hope the EPIC
14 funds can be used, we believe it can as I read the plan,
15 to help cover some of the costs of this yet not-
16 completely-demonstrated treatment technology for
17 lowering emissions from these sources. And we'll be
18 submitting comments to that effect.

19 And as Michael Boccadoro mentioned, AB1900 was
20 passed by the Legislature signed, I think, yesterday by
21 the Governor, that allows injection of biomethane --
22 encourages the injection of biomethane into pipelines.

23 And we would like to, hopefully, be able to
24 demonstrate the technologies suitable for allowing that
25 to occur by the use of EPIC funds going forward. That's

1 dealing with biomethane.

2 The second concern we had is with respect to
3 diversion of municipal solid waste and converting it to
4 energy. It's a very controversial issue in California.
5 We are investing in a lot of technologies nationwide to
6 develop solid, liquid and gaseous fuels from municipal
7 solid waste.

8 We're not really doing much in California
9 because the uncertainty of how those kinds of municipal
10 solid waste from -- energy from municipal solid waste
11 technologies are going to be viewed now and in the
12 future.

13 The Plasco Energy fiasco kind of gave a lot of
14 pause to a lot of folks within waste management; do we
15 really want to invest in these kinds of technologies?

16 We don't see those same kind of restrictions
17 that affected Plasco in your current draft plan and we
18 encourage that to continue.

19 The good news about municipal solid waste
20 conversion technologies to energy is that they can be
21 very low emissions, they can be very clean. They're
22 urban-based, that is they're right where you want the
23 energy to be used is right in the urban environment.
24 they're very low carbon. It is a base load type energy
25 and it does encourage landfill diversion and beneficial

1 use of waste-based materials.

2 So, we're hoping that the plan, as we read it
3 now, continues in its current form to allow funding for
4 some of these expensive conversion technologies to
5 demonstrate their efficacy and ability to help
6 California meet its energy needs. Thank you.

7 CHAIRPERSON WEISENMILLER: Thank you.

8 Aaron Lewis, National Asian/American Coalition.

9 MR. LEWIS: Commissioners, thank you for the
10 opportunity to speak today and I'd like to thank the
11 staff for a very well thought out and thorough report,
12 as well as the CPUC for all their hard work, as well.

13 My name is Aaron Lewis. I'm appearing on behalf
14 of the National Asian/American Coalition, Black Economic
15 Council, and the Latino Business Chamber of Greater L.A.

16 We were originally parties to the rulemaking
17 before the Public Utilities Commission and appreciate
18 the opportunity to be here today.

19 We're very encouraged by the inclusion and the
20 staff proposal of energy-efficient demand side
21 technology among the strategic objectives, specifically
22 LED technology.

23 Lowering the cost and expanding the use of LEDs
24 can provide a dramatic benefit to low income communities
25 in the form of lowered electricity bills.

1 We also applaud the awareness in the proposed
2 plan with regard to incentivizing the refit of multi-
3 family dwellings. As noted in the proposed Investment
4 Plan, the incentive is not always there and low income
5 families and individuals are more likely to rent, and it
6 greatly can affect their budget.

7 Finally, with regard to workforce development,
8 we're very pleased to see that mentioned in there. But
9 we would just like to just mention, for the record, that
10 green jobs are often out of reach for low income
11 communities and communities of color, and training for
12 skills for those jobs is often unavailable. And so I
13 really applaud the inclusion of and the mention of
14 workforce development and job training in the proposed
15 Investment Plan.

16 In conclusion, I'd just like to say and I know
17 everyone here is aware of it, but it's vital to ensure
18 that under-served communities are able to be a part of
19 California's energy future and able to feel the benefits
20 of job creation.

21 And so we will be filing more detailed written
22 comments, but we appreciate the Commission and its
23 efforts, and we look forward to further leadership from
24 the Commission for economic and environmental justice.
25 So, thank you very much.

1 CHAIRPERSON WEISENMILLER: Thank you for being
2 here today.

3 Commissioners comments? Why don't you stay at
4 the dais for a second, we have questions or comments.

5 COMMISSIONER MC ALLISTER: Yeah, so I wanted to
6 thank you for coming and also point out that the
7 Commission, in several proceedings of the Commission --
8 this conversation is relevant, really, in all of them in
9 some way.

10 But the 758, the AB758 proceeding is
11 implementing a law requiring the Commission to develop a
12 comprehensive statewide retrofit program for existing
13 buildings, both residential and nonresidential.

14 Some workshops are happening on the 8th and 9th
15 of October and it's really critical, since workforce
16 development and the other issues you mentioned are all
17 kind of in that conversation. There's a chapter in the
18 scoping plan about workforce. There's another about
19 residential programs and nonresidential programs.

20 And in particular, you know, you mentioned some
21 hard nuts to crack, which is how do we get
22 opportunities, how do we get -- you know, encourage the
23 private sector in the right ways such that small
24 businesses can form, grow, and thrive, and be selling
25 something that consumers want?

1 And, in the best case, is actually accessible to
2 moderate income and lower income families and residents.

3 So, we will be talking about those issues.
4 Definitely be interested in -- if not at these
5 particular workshops, this will be an ongoing
6 conversation and there will be future opportunities to
7 get the Latino contractors, to get the black contractors
8 into the conversation in ways that are productive and,
9 you know, try to establish a pathway.

10 You know, the green jobs discussion is many
11 things to many people and so getting concrete about how
12 that might work in the real world I think is really
13 important.

14 So, thanks for coming to this one and hope to
15 see you again.

16 MR. LEWIS: Just if I can speak to that for just
17 a second, I'd like to echo the comments that the Union
18 of Concern Scientist offered, and NRDC with regard to
19 the Advisory Panel. I think it would be a good step to
20 having community-based organizations and small business
21 representatives there as well. Thank you.

22 COMMISSIONER PETERMAN: And let me just let you
23 know about -- again, Commissioner McAllister mentioned
24 opportunities in energy efficiency.

25 Let me just speak to what's happening in the

1 renewables and transportation space, as well, at the
2 Commission on some of these issues.

3 In the renewable space we'll be coming out with
4 a draft of the 2012 IEPR in October and we have a series
5 of workshops to develop a renewable action plan for
6 that.

7 There was one workshop that was focused on
8 workforce development, as well as economic development
9 opportunities.

10 Throughout the workshops we had representative
11 from more community-based groups, environmental justice
12 groups. I'd like to see more of that. So, it's great
13 to have you here, you're representing quite an array of
14 folks and appreciate you starting to participate more in
15 our forums.

16 In that action plan, some of the actions do
17 pertain to workforce development, identifying preferred
18 geographic areas, including criteria related to
19 disadvantaged communities. And so appreciate your
20 review of that plan, as well as the folks you're
21 representing, and the comment on that.

22 Also, we manage, at the Commission, the AB118
23 program, a program for alternative fuels vehicle
24 infrastructure. And that is approximately \$100 million
25 a year annually that we deploy to a number of types of

1 projects.

2 We have an Advisory Committee as a part of that.
3 We put out a notice last week explicitly requesting
4 participation from environmental justice representatives
5 and community-based groups, as well as, you know, any
6 other stakeholder group that is not seemingly
7 represented on the Advisory Committee.

8 So, there's a real commitment, as Commissioner
9 McAllister noted, at the Commissioner level to having a
10 more inclusive process and more representation from the
11 groups that you mentioned.

12 MR. LEWIS: Well, we certainly appreciate the
13 attitude and conscientiousness.

14 COMMISSIONER PETERMAN: And you can find out,
15 you can send an e-mail to AB118 at energy.ca.gov if you
16 want to get a copy of that request for Advisory
17 Committee representation, and there is a couple of
18 meetings a year for that.

19 MR. LEWIS: Great, thank you, I will.

20 COMMISSIONER MC ALLISTER: you know, I'm going
21 to have to get the AB715 its own e-mail, that's slick.

22 COMMISSIONER PETERMAN: Try to do the best we
23 can.

24 MR. LEWIS: Thank you, Commissioners.

25 CHAIRPERSON WEISENMILLER: Great. So, Kristen

1 Carter from the Grant Management Associates.

2 MS. CARTER: Good afternoon, thank you. My
3 comments have a lot less to do with the actual proposal
4 and more to do with the solicitation process because my
5 company works with a variety of clients that hit all the
6 various sectors that you're working in.

7 And there are some common themes that come
8 about. We own a grant writing company that works with a
9 variety of clients and when you're thinking about the
10 match requirements that go into this type of a
11 solicitation, especially with research and development,
12 R&D type activities, often it is difficult, if not
13 impossible, for our clients to meet the requirements to
14 produce a letter of commitment in the short time frame
15 of this solicitation.

16 So, something that you might want to consider
17 doing and we're seeing this coming up on the federal
18 level, and elsewhere, is that you could award more
19 points in the solicitation process for letters of firm
20 commitment that are submitted with the application
21 but -- however, it's not required as part of the
22 application process.

23 So, that will allow for companies that don't
24 have an ability, on a short notice, to come up with
25 those letters but could, potentially, come up with the

1 funding.

2 Because we agree that matching funds are a smart
3 way of investing these dollars is to maximize those
4 opportunities.

5 So, that's something that the staff may want to
6 consider in the solicitation process.

7 The other thing is a pre-proposal process which
8 really helps to guide the applicants. It's a lot less
9 burdensome on the application process to -- and a lot
10 less costly, time wise, to participate in a pre-proposal
11 solicitation process.

12 But if the staff could then give some feedback
13 to those applicants, as they go into a full application,
14 in the areas that they would like to see strengthened,
15 that also helps quite a bit for our clients to produce
16 an application that is really, clearly in alignment with
17 what you hope to get is to get that feedback.

18 And we saw that just recently in the Sun Shot
19 application process. It was really incredibly helpful
20 for our clients.

21 So, those are two areas that I think would be
22 really helpful.

23 The last one would be with royalties. I know in
24 the past, with the PIER program, that some of our
25 successful applicants have had to pull their potential

1 contracts because of the royalty clauses. So, if you do
2 anticipate trying to obtain that, those clauses into
3 this process, I would, you know, second guess that.
4 Because I know that for many of the companies that we
5 worked with that was a burden, it wasn't going to happen
6 for them. Okay.

7 CHAIRPERSON WEISENMILLER: Thanks. Again, I
8 would note we've had two audits done on royalties, one
9 at PIER and then one statewide, and it's been a very
10 strong push from the Legislature. You know, those are
11 the facts.

12 MS. CARTER: Yeah, and I realize that.

13 CHAIRPERSON WEISENMILLER: Laurie, do you have
14 any comments on those questions, on those suggestions?

15 MS. TEN HOPE: I think they're good suggestions.
16 We're entertaining ways that we might do our
17 solicitations in a more expeditious way and this is
18 actually not going to necessarily be faster to do a two
19 stage. But, yes, we'll take it under consideration.

20 We've done two stages for some of our
21 solicitations. We did it for the IAW demonstration
22 projects and I think it was helpful for both the
23 applicants and for ourselves.

24 CHAIRPERSON WEISENMILLER: Great. Blair Swezey
25 from SunPower.

1 MR. SWEZEY: Thank you, Chair Weisenmiller.
2 Commissioner McAllister, good morning, Kevin.

3 First, like others, I want to recognize the
4 tremendous effort that obviously went into this plan to
5 put it together in such a short time frame.

6 Second, I want to echo the comments of Andy
7 Schwartz on the appropriateness of including NSHP
8 funding in the Investment Plan based on the CPUC's
9 previous determination and the passage of SB1018.

10 Clearly, NSHP contributes to the achievement of
11 the CSI program requirements, in addition to the
12 government's 12-gigawatt goal for California, and for
13 distributed generation, and the CEC's goal of zero net
14 energy homes by 2020.

15 And so I commend -- we want to commend the CEC
16 for including NSHP in the Investment Plan.

17 We do have a couple concerns that we'll address
18 in written comments. The first, echoing both CBIA and
19 SEIA is the -- both the amount and the timing of the
20 funding, particularly with uncertainty about payback of
21 the previously borrowed funds.

22 I appreciate Commissioner Peterman's previous
23 comments about the declining incentive schedule and
24 such. But the goal here is to avoid program
25 interruption and the uncertainty that goes along with

1 that for the market, and for the building industry.

2 And then the second are proposed changes in the
3 incentive reservation term. And I'm not entirely clear
4 on what's driving that, something with the funding and
5 the appropriations schedule for EPIC versus PGC.

6 But, you know, the current reservation term
7 really was based on a lot of work that had previously
8 been done with the industry in determining the proper
9 approach for the program.

10 So, we'd like to understand a little more about
11 what is driving that because the builders really do need
12 an adequate planning period in order to implement the
13 program effectively.

14 So with that thank you and we will be submitting
15 written comments.

16 CHAIRPERSON WEISENMILLER: Great, thank you.

17 Pam, do you have -- do you want to talk about
18 that aspect?

19 MS. DOUGHMAN: Sure. The NSHP currently has
20 continuous appropriation authority and that allows us to
21 work out a time frame that works best for the building
22 industry, the PV providers.

23 But now, under EPIC, we do not any longer have
24 continuous appropriation and so that will affect the
25 time that we have available to hold -- to encumber the

1 money before we -- so, it looks like a three-year
2 reservation period may be difficult to continue.

3 CHAIRPERSON WEISENMILLER: Colin Plumb, Coulomb
4 Technologies?

5 MS. QUINN: I was already able to provide some
6 input and we'll be putting in written comments, thank
7 you.

8 CHAIRPERSON WEISENMILLER: Okay, thank you.
9 Paul Mason, Pacific Forest Trust.

10 MR. MASON: Good morning, thanks for the
11 opportunity to make some comments; Paul Mason with
12 Pacific Forest Trust.

13 And I also want to just echo the comments that a
14 lot of other folks have made this morning about the
15 amount of work that the staff has put into this report.
16 I think it's very impressive and very helpful, and we'll
17 provide additional comments by Monday.

18 I just want to take a moment and look for some
19 clarification around biomass, in particular, and the use
20 of forest biomass. And I'm hoping that some of the
21 areas where the document calls for some assessments that
22 we can be sure that we're leaving the opportunity to do
23 some sustainability assessment.

24 So that as we're looking at additional
25 facilities utilizing forest biomass, that we're being

1 careful and clear that the sourcing of that fuel is
2 helping the forest and the surrounding area become more
3 resilient and better prepared for the changing climate
4 and that we're not drawing excessively on those forest
5 areas and, you know, causing adverse environmental
6 impacts.

7 I think those sorts of assessments will be very
8 helpful. It's probably also worth looking at, if we're
9 providing other sorts of support to some of these
10 facilities, that there are some requirements that, even
11 if we're not specifically funding assessments, that they
12 are meeting some sustainability criteria so that we're
13 not investing in a facility that is not advancing these
14 other broad goals of leaving the forested landscape more
15 resilient, rather than less. Thanks.

16 CHAIRPERSON WEISENMILLER: Okay, thank you.
17 Questions?

18 COMMISSIONER PETERMAN: I'll just add the
19 comment that in the 2012 Bioenergy Action Plan, which
20 came out last month, that mentioned kind of these issues
21 of the importance of sustainability and sustainable
22 harvesting have come up.

23 And so I would encourage staff to look at that
24 plan to get a sense for some of those overall
25 considerations that have been raised. Thank you.

1 MR. MASON: Okay, thank you.

2 MS. TEN HOPE: I'll just note that we have good
3 crossover with the staff involved in the Bioenergy Plan
4 and the EPIC Plan.

5 And, Gary, do you want to make any comment to
6 clarify?

7 MR. O'NEIL: We can definitely add a
8 clarification in the plan, but it was our thought that
9 it would fit within the description of some of the
10 applied research for bioenergy.

11 MR. MASON: Oh, thank you.

12 CHAIRPERSON WEISENMILLER: A representative from
13 ReVision.

14 MR. PREVISO: Thanks for having me. I, equally,
15 am -- it's nice to be back.

16 I equally have been impressed by the plan,
17 itself. And in particular I was very impressed by the
18 inclusion of marine energy, namely offshore wind and
19 wave.

20 I've been working on these topics for over a
21 decade now in California, in Sacramento. We're a small
22 company, five technical engineers on staff.

23 And we do a lot of support for the U.S.
24 Department of Energy, for National Labs Sandia and NREL.
25 We work a lot with universities.

1 And I think it just is important here to outline
2 the opportunity here. When we look at resource
3 assessments for California, we can see that the
4 potential for generation of electricity from offshore
5 wind and waste combined actually exceeds the States
6 potential or the State's electricity consumption.

7 So, a tremendous opportunity here to actually
8 tap into an unexplored utility-scale, renewable energy
9 source which really hasn't been done before in
10 California, so I'm glad that California's waking up to
11 this.

12 I just want to sort of outline, maybe, the high-
13 level points of what I think is important, as you said,
14 of going down this road.

15 And the first one is it's really important to
16 get some demonstrations out into the water. And that's
17 important, both from a technical perspective, but also
18 to explore the environmental effects that these
19 technologies may have to develop a better understanding
20 of the public perception of these technologies.

21 So, it's sort of what brings everything together
22 in a sense.

23 And I want to point out, and I've said this
24 before, but there's some opportunities in Southern
25 California, in particular, to develop something like

1 that close to an offshore oil and gas installation, like
2 Platform Irene, or some of these installations down
3 there.

4 It would cut down tremendously in cost. It
5 would also eliminate some of the permitting hurdles.

6 But we've done a little bit of preliminary
7 assessments and we think within a three-year time
8 period, which is this next period of the Investment
9 Plan, I believe you could actually fully permit a site
10 and get it shovel-ready, in a sense.

11 The second point I want to make, just looking at
12 your road maps, obviously, a lot of work remains to be
13 done in terms of looking at sort of R&D type work that
14 needs to be done.

15 And I want to outline some of the areas that I
16 identify as high --

17 CHAIRPERSON WEISENMILLER: You know, you're
18 going to have to summarize, briefly, and then file
19 written comments.

20 MR. PREVISO: Okay, sure. So, basically,
21 research activities are going to focus around resource
22 characterization, infrastructure characterization,
23 environmental studies and take economic assessments.

24 And, finally, I'm very supportive of developing
25 some sort of a California technology cluster.

1 And I will close at that and we'll have some
2 detailed written comments on everything.

3 CHAIRPERSON WEISENMILLER: Yeah, thank you very
4 much. Although, again, I would note what we've found
5 putting wind machines in solar thermal throughout the
6 State is eventually the military comes in and says not
7 there.

8 MR. PREVISO: Uh-hum.

9 CHAIRPERSON WEISENMILLER: And they have similar
10 concerns on the offshore that one needs to factor into
11 the planning.

12 MR. PREVISO: Yeah, that's actually a very good
13 point. What I would encourage you to do is really look
14 at what the Navy's doing in this field, that they're
15 very interested in marine renewables, and maybe there
16 may be some partnership opportunities.

17 CHAIRPERSON WEISENMILLER: There may be some
18 partnership. But again, they've also put areas where
19 they're doing Stealth testing, which they do not want
20 wind machines in, period.

21 MR. PREVISO: Yeah, absolutely.

22 CHAIRPERSON WEISENMILLER: Okay, thank you,
23 looking forward to your comments.

24 Leonard Devanna from Clean Energy Systems.

25 MR. DEVANNA: Good afternoon. I would like to

1 thank you for the opportunity to provide comments today.
2 And I'd like to congratulate the Commission and the
3 staff for putting an excellent report together as far as
4 an Investment Plan. It has very many positive features
5 and I recognize under a tight time constraint.

6 I would like to just use Clean Energy System as
7 an example of what funding of companies can do. Clean
8 Energy Systems was founded with two PIER grants several
9 years ago. Today we have a market cap of \$100 million
10 Fortune 500 Company investors, and have created many
11 jobs in the California area.

12 The reason for my comments or coming here today
13 is there was another report done earlier, funded by the
14 California Energy Commission, and it was called
15 "California Energy Future: The View to 2050."

16 And this, as I understand it, was done by the
17 California Council on Science and Technology, and it was
18 report, a two-year study as far as what technology
19 advancements had to be made in the energy system to
20 achieve AB32 reduction requirements.

21 And as I looked over this report and compare it
22 with this, there are at least 8 to 10 initiatives that
23 they said there should be advances in these fields, such
24 as achieving 100 percent carbon capture utilization,
25 achieving zero emission load balancing plants, achieving

1 net zero greenhouse gas emissions with biofuels, and de-
2 carbonizing technologies that de-carbonize natural gas
3 to hydrogen.

4 And as I looked at this plan my concern was if
5 parties propose projects in these areas, which kind of
6 this independent study identified as important, I wanted
7 to be certain there was a match.

8 And my request is can you look through this
9 report and be certain there was some place that the
10 technologies they identified here kind of have at least
11 a tag place where they could be funded under this grant
12 program?

13 CHAIRPERSON WEISENMILLER: Again, that's a good
14 point, but part of our concern is focus. So, it helps
15 to identify that things drop out as we add things.

16 MR. DEVANNA: That's correct. This is a pretty
17 precise eight recommendations, I'll leave that to your
18 staff.

19 And I suggest, perhaps, it should be a strategic
20 objective to identify, to achieve the AB32 reductions
21 because this crosses all fields, whether it's photo,
22 biofuels, et cetera. Thank you very much.

23 CHAIRPERSON WEISENMILLER: Thank you.

24 COMMISSIONER PETERMAN: I just wanted to quickly
25 interject, in case we lose some people on the phone or

1 in the room, that we just consulted with staff to see if
2 we can give at least one more business day for comments.
3 Is that okay, Director ten Hope?

4 MS. TEN HOPE: Yes, although everyone on the
5 team is looking at me like what? Yes.

6 COMMISSIONER PETERMAN: It's an incredibly tight
7 schedule and, frankly, we could have used these comments
8 a week ago. But just acknowledging that it would be
9 good to have one more working day so people can reflect
10 a little bit on the conversation today and not spend all
11 your Sundays together trying to file your comments, so
12 if we can make that Tuesday as the deadline, much
13 appreciated. Thanks.

14 CHAIRPERSON WEISENMILLER: Good. Dan Chia,
15 Solar City.

16 MR. CHIA: Chairman, Commissioners, Dan Chia
17 with Solar City. Thank you for the opportunity for me
18 to testify today.

19 Solar City's a leading, fully integrated, clean
20 energy provider in the nation and this State, with over
21 1,000 California employees, and 11 warehouses and
22 facilities throughout the State.

23 We're an active participant in the New Solar
24 Homes Partnership.

25 It has submitted and reserved almost 1,600

1 systems on new homes and hope to build zero net energy
2 homes in the State, including about 300 at the West
3 Village Project on the UC Davis campus.

4 So, thank you to the PUC and the Governor for
5 their leadership on the EPIC program in general and for
6 your leadership in folding new solar -- taking the
7 orphaned New Solar Program under your wings and
8 recognizing the importance of it in meeting both CSI and
9 the Governor's DG goals.

10 I wanted to associate my comments with Bob
11 Raymer at the Building Industry, as well as my two solar
12 colleagues at SunPower and SEIA.

13 I would add that SEIA requested \$40 million a
14 year in funding based on a simple sort of math, the
15 balance of the statutory authorized budget, which is
16 \$400 million, and the remaining years of the CSI program
17 through 2016. So, it was a very basic sort of
18 arithmetic.

19 So, we would request clarification on how the
20 \$25 million was arrived at and how it, importantly,
21 relates to the statutory goal of \$400 million for the
22 program.

23 And I would know that it's -- the way I
24 interpret the statute, an absolutely number and not a
25 ceiling.

1 So, new solar is, I think, unique in the EPIC
2 Investment Plan in that the budget has already been set
3 by the Legislature. And while we certainly support the
4 notion that incentives should reflect declines in
5 prices, we ask that there be some semblance of
6 association between the budget amount and the demand.

7 As Mr. Raymer has mentioned, we are on the cusp
8 of market transformation in this program. Solar, as a
9 standard feature, on homes, just like granite
10 countertops, is unprecedented and a phenomenal
11 achievement that we hope to expand throughout the
12 building industry in California.

13 So, clarification on that number is important to
14 us. So, if you deduct the \$50 million from the balance,
15 which estimated about \$200 million, you arrive at about
16 \$150 million for the last two years of the program.

17 And we would submit that the opposite would be
18 appropriate given the cusp of where we are on the
19 development, and decline those numbers or budget as the
20 market is transformed.

21 We believe this is a consistent approach, or an
22 approach consistent with the PUC's phase 2 decision and,
23 in fact, the decision precisely supported this approach.

24 Finally, we thank Commissioner Peterman for your
25 leadership in overseeing this program and look forward

1 to working with you on future changes to the guidebook
2 and, certainly, participation in a working group to
3 guide further changes of the program. Thank you very
4 much.

5 COMMISSIONER PETERMAN: Thank you for your
6 comments and we'll see what additional clarification we
7 can provide.

8 Appreciate, again, you've been a very active
9 member in our New Solar Homes Partnership Program, Solar
10 City has.

11 I'd just reiterate my other comment that the
12 statute does have a \$400 million budget in it, although
13 there was no -- as you know, no funding associated with
14 that funding stream which is now how we're in this
15 position. And it also has a 400-megawatt goal.

16 And so, again, we're looking at what does it
17 take in terms of dollar amount to get to that 400-
18 megawatt goal, but I think there could be some more
19 clarity in the plan on that. So, we'll take those
20 considerations under advisement. And appreciate your
21 comments you'll submit, thank you.

22 CHAIRPERSON WEISENMILLER: Okay, Valerie Winn,
23 PG&E.

24 MS. WINN: Good afternoon, Valerie Winn with
25 Pacific Gas & Electric Company. As one of the other

1 parties who is putting together an investment plan for
2 EPIC, I can truly appreciate the time and the effort
3 that's going in, that the CEC has committed to this
4 process.

5 And I have to say the work on your plan is
6 actually, you know, helping all of us because we're able
7 to look at your very robust plan and look at ours, and
8 try to figure out where there are overlaps, where we
9 might want to streamline things and to, you know, reduce
10 any duplication. And that's been very helpful.

11 It's been a very collaborative process with
12 sharing of information and we look forward to
13 continuing, over the next few weeks, to have those
14 discussions.

15 And once we have the Investment Plans, you know,
16 move forward as we implement these things.

17 So, we really feel that those efforts to reduce
18 any duplication will really help us ensure that our
19 customers' money, that's going towards these research
20 efforts, is going to be spent most effectively.

21 One other topic that's been mentioned today is
22 the New Solar Homes Partnership. And as you know, PG&E
23 does work with the Energy Commission in administering
24 that program.

25 And we are encouraged by the idea of additional

1 workshops to look for ways to streamline some of the
2 efforts there and to reduce some of the burdens. And we
3 look forward to working on those later in the fall.

4 Lastly, for those who aren't aware, there's
5 going to be a webinar tomorrow that the three IOUs are
6 having to talk about their investment plans. And so if
7 anyone needs information on that webinar, I'm happy to
8 take their cards and share that information with them.
9 Thank you.

10 COMMISSIONER PETERMAN: Valerie, to the extent
11 that there's folks who are on WebEx, who might be
12 interested in the webinar, is there a website I can go
13 to find information?

14 MS. WINN: They can just send me an e-mail and
15 it's Valerie, Valerie.winn@pge.com, and I'll get that
16 information to them.

17 COMMISSIONER PETERMAN: Thank you very much.

18 MS. WINN: Sure thing.

19 MS. DOUGHMAN: There's a link to the notice for
20 the webinar on the Energy Commission's EPIC webpage as
21 well.

22 COMMISSIONER PETERMAN: All right, then go there
23 first and don't pester Valerie at her personal e-mail.
24 EPIC webpage, if you want more information about the
25 utilities' webinar. Thanks.

1 CHAIRPERSON WEISENMILLER: Okay, do we have any
2 comments on the phone?

3 MS. TEN HOPE: We do. I have one comment that a
4 gentleman asked to be read and Rachel may have some
5 additional ones.

6 This is from Boaz, who asks, "Is there currently
7 an initiative that supports demonstrations of
8 technologies that protect birds and other animals from
9 being harmed by electric infrastructure and/or wind
10 turbines? These same technologies obviously increase
11 reliability."

12 And so I would call his attention to the
13 strategic objective S5 and, specifically, the initiative
14 S5.2, which is research on sensitive species and
15 habitats to inform renewable energy planning and
16 deployment.

17 So, it's certainly envisioned that work on
18 sensitive species and science that would inform
19 renewable development and fossil generation be part of
20 this Investment Plan.

21 We also, we have one comment from Arthur
22 O'Donnell, at the CPUC, who's asking "whether any awards
23 have been made in 2012, besides the KEMA Tech support
24 contract since the CEC approval of the plan is not
25 expected until May 2013, and how will 2012 funding be

1 guided by this proposed plan, and will uncommitted funds
2 be carried over to 2013 solicitations?"

3 So, first of all I want to clarify that the --
4 there have been no awards made for EPIC Program funds.
5 The KEMA contract that's referenced is PIER funds and
6 was approved last May.

7 So, we have some support funds to develop the
8 Investment Plan, but program funds won't be expended
9 until the CPUC approves the plan in 2013 and we have
10 budget authority to spend the EPIC funds.

11 The 2012 funding, it's our understanding that
12 this is a three-year plan and that the solicitations we
13 would roll out in 2013, basically a year and a half
14 worth of funding and pick up the remainder in 2014.

15 So, the 2012 would be expended over the course
16 of the next two years, once the plan is approved and
17 authorized.

18 And I believe we have some other questions. Is
19 this Sashu? Sashu Constantine wants to make her own
20 comments on market facilitation.

21 MR. CONSTANTINE: His comments.

22 MS. TEN HOPE: Sorry.

23 MR. CONSTANTINE: Thank you. Good afternoon.

24 MS. TEN HOPE: I'm sorry.

25 MR. CONSTANTINE: That's okay.

1 Good afternoon, this is Sashu Constantine, I'm
2 the Director of Policy for California Center For
3 Sustainable Energy. Chairman, Commissioner Peterman,
4 Commissioner McAllister and everyone, thank you for this
5 opportunity to comment.

6 I want to join the growing chorus of folks who
7 are lavishing praise on staff and both the CEC and the
8 CPUC for the excellent work on this Investment Plan. It
9 covers a lot of areas that we are very supportive of and
10 I will speak to a few of them, and we will also submit
11 written comments highlighting what we think are some of
12 the priorities going forward.

13 I do want to echo some of the comments earlier
14 today, especially from Peter Miller at NRDC, but only in
15 his tone, which have also just reflected a support, and
16 praise for the collaborative elements of this plan; but
17 also to his comments about the sort of smorgasbord or
18 menu-like qualities of this proposal. We are looking
19 for sort of a list of chef specials, if you will, on
20 that menu.

21 I think we really like the transportation
22 elements and some of the renewables. We were very
23 supportive of the NSHP element, echoing what the solar
24 folks have said, Blair at SunPower, and Dan at Solar
25 City.

1 The bulk of our comments and the bulk of our
2 interest is on the market implementation side, both the
3 website and the portal information, but also the
4 analysis and the dissemination of information.

5 One of the things that I think could be
6 prioritized here is the consumer-facing, or ratepayer-
7 facing, or public-facing dissemination of that. And not
8 just for program evaluation, but for use out in the
9 market.

10 We have a number of historical programs that
11 provide data, but they're not necessarily unified, there
12 isn't a single web portal.

13 We have statewide brands, Energy Upgrade
14 California, California Solar Statistic, which is part of
15 the CSI Program and the Go-Solar California brand and
16 website.

17 This is a widely used database, with a lot of
18 really useful information, but it's not necessarily
19 fully coordinated with information from ERP or from the
20 New Solar Homes Program, for example.

21 And this EPIC Investment Plan provides a great
22 opportunity to build a platform that can consolidate and
23 coordinate that kind of information. We think that will
24 be tremendously useful to the market going forward, and
25 consumers.

1 Also, want to really highlight what NAAC said
2 about workforce development and targeting communities,
3 disadvantaged communities.

4 And I was particularly encouraged to hear
5 earlier today, and I think in a written comment, that
6 there's an opening for longer-term funding.

7 I think when we talk about investment in
8 workforce development, and in training centers, and in
9 demonstration centers, and targeted areas it isn't quite
10 as useful to think about one-off funding. We want to
11 think about long-term sustained funding, so that the
12 investments that we're making in this plan really carry
13 through to future policy.

14 So, thank you again for this opportunity and we
15 will look forward to submitting written comments on
16 Tuesday, rather than Monday, so thank you for that.

17 CHAIRPERSON WEISENMILLER: Thank you.

18 Commissioners, are there any questions or
19 comments from this gentleman?

20 Next on the line?

21 MS. TEN HOPE: Carol Zabin from UC Berkeley.

22 Carol Zabin?

23 Do we have any others? That's the last I have
24 from you.

25 MR. MC HUGH: Can you hear me?

1 CHAIRPERSON WEISENMILLER: Yes, go ahead.

2 MR. MC HUGH: Thank you very much, Chair
3 Weisenmiller and Commissioner McAllister. This is a
4 well-done portfolio of various measures and advanced
5 technologies to continue to look at.

6 I just had a few comments on an otherwise
7 excellent portfolio.

8 The first one is in the -- I don't know what you
9 call it, area one, which has to do with efficiency. By
10 the way someone's -- can you guys hear me?

11 CHAIRPERSON WEISENMILLER: Yes, we can.

12 MR. MC HUGH: Hello?

13 CHAIRPERSON WEISENMILLER: We can hear you, keep
14 going.

15 MR. MC HUGH: In S1 there's discussion of
16 building efficiency, but no segment for process
17 efficiency, you know, industrial process efficiency.
18 And if you look at, you know, just as an example,
19 there's a huge amount of opportunity for savings with
20 compressed air systems, you know, and there's a variety
21 of other processes that are used widely across the State
22 that this just seems like a gap that, you know, should
23 be addressed.

24 The other one is I'd like to give a special
25 emphasis and support to the recommendation about indoor

1 air quality because I actually see that, especially for
2 residential buildings, issues associated with indoor air
3 quality are probably a key barrier to having ultra-
4 efficient buildings because of the amount of toxics in
5 building materials.

6 And prior work done by Offerman, for a joint
7 PIER CARB study showed that 100 percent of the new
8 buildings in their sample actually exceeded the Prop. 65
9 exposure values. You know, theoretically, you should
10 actually be putting a Prop. 65 label on every new house
11 for formaldehyde.

12 And in addition that there's a substantial
13 amount of benzene, you know, which is in gasoline, found
14 in two-thirds of those houses, which kind of indicates
15 that maybe the California Energy Commission approach of
16 de-pressurizing houses for indoor air quality is perhaps
17 not a great idea.

18 So, I think there's a huge amount of research
19 that needs to go into actually identifying are there any
20 buildings out there, new buildings that are essentially
21 non-toxic.

22 So, anyway, I think this is a huge area and I
23 wanted to emphasize that.

24 In addition -- can you guys still hear me?

25 COMMISSIONER PETERMAN: Yeah, but I want to let

1 you know that you have a three-minute limit, so you're
2 approaching that.

3 MR. MC HUGH: Okay, I'll be quick with all
4 these.

5 COMMISSIONER PETERMAN: So, I'm going to ask you
6 to start wrapping up, but make sure you submit -- feel
7 free to wrap up some comments, but also submit some of
8 the detail you just talked about in your written
9 comments, as well. Thank you.

10 MR. MC HUGH: Sure.

11 COMMISSIONER PETERMAN: Uh-hum.

12 MR. MC HUGH: So the next thing is in terms of
13 clean energy --

14 CHAIRPERSON WEISENMILLER: Actually, make it the
15 last thing.

16 MR. MC HUGH: -- I would recommend that the
17 Commission look at learning from other countries. You
18 know, Germany has, you know, installed 300 watts per
19 person in their country, whereas California has around
20 25 watts per person installed.

21 And so if we're looking at what are the grid
22 impacts and those sorts of things, certainly some
23 research learning from those high penetration countries
24 would be fantastic.

25 CHAIRPERSON WEISENMILLER: Okay, again, as you

1 wrap up -- you're out of time. But we do have a KEMA
2 study that looked at Germany versus Spain.

3 MR. MC HUGH: Okay.

4 CHAIRPERSON WEISENMILLER: But your three
5 minutes are shot. Thanks.

6 COMMISSIONER PETERMAN: You can find that study
7 on our website, we commissioned it last year.

8 MR. MC HUGH: Okay.

9 CHAIRPERSON WEISENMILLER: Okay, next.

10 MR. MC HUGH: Okay, um --

11 CHAIRPERSON WEISENMILLER: No, you're done.

12 Next.

13 MR. MC HUGH: Okay, thank you.

14 COMMISSIONER PETERMAN: Sir, thank you for your
15 comments.

16 MS. TEN HOPE: I'm going to try one more time
17 for Carol Zabin. So, going once, Carol?

18 COMMISSIONER PETERMAN: We'll look for Dr.
19 Zabin's written comments, as well.

20 MS. TEN HOPE: All right, I have a couple more.

21 CHAIRPERSON WEISENMILLER: Sure.

22 MS. TEN HOPE: From Rajat Chakraborti, from CH2M
23 HILL, is asking "if there is any research planned on the
24 fate of invasive species due to climate change?"

25 I wouldn't consider -- this is not in scope of

1 what we've proposed in the Investment Plan. We do have
2 climate science related to electricity, the electricity
3 system. So, if this ties back to the climate impact on
4 electricity infrastructure or directly, electricity
5 infrastructure on climate, we would be looking at
6 research in that area.

7 But I would mention that there is a broad
8 coalition of State agencies that are looking at climate
9 mitigation and adaptation across all sectors. So this
10 is a potential topic for, you know, some statewide
11 research, but probably not in the EPIC Investment Plan.

12 The next question is from Tom Faust. "Will
13 there be a set-aside for small business under 500
14 employees? This sector always finds it difficult to
15 provide matches, thus eliminating them from nearly all
16 awards."

17 This is an area that I would confirm with our
18 contract attorneys, but I don't believe we've set aside
19 preferential -- preferential set-aside for small
20 businesses or other entities.

21 We do have a preferential credit as part of the
22 scoring criteria within our solicitations. But that
23 question, I'll confirm these questions that came over
24 WebEx to make sure that people have the right answers.

25 Any other WebEx participants?

1 Haresh Kamath from EPRI wants to make a short
2 statement. And we will be unmuting you here.

3 MR. KAMATH: Very good, thank you. I'm Haresh
4 Kamath from the Electric Power Research Institute. We
5 are a nonprofit research organization in public interest
6 research in energy and environment, and I actually work
7 in the energy storage area.

8 Just commenting on the energy storage part of
9 this plan, we believe that this is a very comprehensive
10 plan in energy storage, both in technology development,
11 as well as modeling, and in actual grid deployment of
12 technologies.

13 And we think that this is a very effective way
14 of developing the technology further.

15 I would like to point out that one of the areas
16 here, really, in terms of energy storage, is making sure
17 that it is a viable option for utilities and for other
18 stakeholders to manage the grid in a way that makes
19 sense, both from a safe and reliable stand point, as
20 well as the cost-effective stand points, both the
21 technical and the economic considerations are important.

22 One area that I think was mentioned in the
23 Investment Plan, but may not have a lot of detail, was
24 the development of very specific tools to understand
25 what the value of the storage is in specific context and

1 understand how those tools can be used by utilities to
2 determine the best place for storage and how they best
3 can be used.

4 This is an area of research that really does not
5 have a lot of practical experience behind it because the
6 grid technologies have not been deployed very widely.

7 But there's a lot of interplay between
8 development of those tools and the actual deployment of
9 storage that is going to be important as this research
10 area evolves.

11 At the same time it's very important, also, that
12 utilities in California and elsewhere have opportunities
13 to actually deploy storage on their grids which is a
14 rather difficult prospect right now, given the expense
15 of those technologies.

16 Although many of those technologies are being
17 developed in the State of California and so we have
18 local vendors that can support their development, it's
19 certainly advantageous if there are research programs
20 that are developed by the California Energy Commission
21 to actually aid in the deployment of such technologies,
22 and in the long-term operation of those technologies so
23 that we get data back and are able to influence our
24 models to more accurately understand where the values of
25 storage are and how they can be deployed in the most

1 effective way possible.

2 Finally, I think it's well understood that the
3 technology for energy storage today is good, but it can
4 always get better and there are underlying technologies
5 that can be very important in making storage more
6 effective and more economical in the future.

7 So, it's very important that the research
8 portfolio include some basic research that could be
9 applied in the many research institutions in California
10 to develop new technologies for the future, looking at
11 the long term in the -- you know, beyond the ten-year
12 horizon to make sure that a future generation will have
13 even more cost-effective storage and, ultimately, a more
14 reliable and affordable source of electricity for the
15 future. Thank you.

16 CHAIRPERSON WEISENMILLER: Thank you.

17 Anyone else?

18 MS. TEN HOPE: Oh, yeah, sorry, Carol Zabin is
19 now on the line.

20 MS. ZABIN: Hello?

21 MS. TEN HOPE: Hello. Please go ahead.

22 MS. ZABIN: Can you -- okay, you can hear me,
23 now?

24 MS. TEN HOPE: Yes, we can hear you, yes.

25 MS. ZABIN: Okay, great. Okay, thank you very

1 much for hearing my comments and, again, I also commend
2 the hard work that the Commission and staff has invested
3 in this plan.

4 I want to limit my comments to the workforce
5 education and training section, and I appreciate you
6 guys referencing our study that we did for the CPUC and
7 the IOUs.

8 I do want to suggest, my overall comment is that
9 it would be really beneficial to immediately create a
10 task force, even in the rewriting of this plan that
11 brings in the labor agency.

12 With really all due respect for your vast areas
13 of expertise, the way this plan is written does, once
14 again, show that workforce is not a core competency of
15 the Energy Commission because there's still a lack of
16 understanding of how the workforce system works.

17 And so I have three very specific comments.
18 One, we commend you for recognizing apprenticeship and
19 making sure that those -- that we align our training
20 investments with apprenticeship.

21 And in our written comments we'll point out the
22 inaccuracies of the way you have framed that component.

23 Second, on the study, you know, the study that
24 we did really did carry out many of the tasks that you
25 have -- that you have outlined for that study.

1 So, our feeling is that it might not be the best
2 use of resources to do another study when, in fact, a
3 lot of the recommendations in the study can need
4 resources to be implemented.

5 The two areas that haven't been addressed are
6 really looking at the costs and benefits of standards
7 and certifications, and the actual, rather than the
8 predicted, job impact of the energy investment.

9 Those were the two that are highlighted in the
10 CPUC decision and could be an area for EPIC funding.

11 And, finally, real quick, on the web portal, we
12 have a factor in the needs assessment about how hard it
13 is to do job-matching services and how any web portal
14 that is trying to match job openings with people looking
15 for jobs really should be part of the millions of
16 dollars of resources that the Employment Development
17 Department spends on trying to do job matching. And
18 that one more investment in a jobs board, on an Energy
19 Commission site, is probably a wasted resource.

20 Okay, thanks a lot.

21 CHAIRPERSON WEISENMILLER: Carol, thank you very
22 much for your comments. Certainly, any real -- the more
23 specific your comments are and, again, there's a very
24 short time, the more we can incorporate those.

25 COMMISSIONER PETERMAN: And I'll just add,

1 Carol, that we've been talking to the Employment
2 Development Department about their portal, you know,
3 following up with some of the workshops we had this
4 summer on -- for the Renewable Action Plan.

5 And to the extent that we can leverage an
6 existing resource, maybe get more other Agency input,
7 you know, get the word out about that portal and maybe
8 even prove the ability to search for clean energy jobs
9 there, I think that would be useful.

10 So, I think your point is well-taken about not
11 creating a duplicative measure and we're talking about
12 how we can coordinate better with them. So, thanks.

13 COMMISSIONER MC ALLISTER: So, I guess I would
14 just point out that from the Commission's perspective it
15 seems like, Carol, you're up here with a different group
16 of Commission staff and Commissioners reasonably often,
17 I think, so maybe we should try to consolidate our
18 coordination and make it a bit more of a cross-cutting
19 discussion, both at the staff level and at the
20 Commissioner level so we can -- I know I need some
21 education about how the agencies -- how the other
22 agencies that you work actually structure their
23 activities, and what resources are actually available
24 out there. So, maybe I need that education just
25 personally.

1 But I kind of feel like there's very spotty
2 information in both our stakeholders and definitely
3 within the Commission, at some level, about what
4 infrastructure's already available out there, you know,
5 so maybe --

6 CHAIRPERSON WEISENMILLER: Within the Bagley-
7 Keene context, we will be complying with that.

8 COMMISSIONER MC ALLISTER: Yes. No, absolutely,
9 of course.

10 But this same discussion is being had in other
11 proceedings and I think to the extent it's duplicative
12 and we can actually streamline just a little bit, within
13 the Bagley-Keene constraints, we should. So, thanks.

14 CHAIRPERSON WEISENMILLER: Others?

15 MS. TEN HOPE: No others.

16 CHAIRPERSON WEISENMILLER: Okay. So, this may
17 be repetitive, but are there any public comments?

18 Okay, it's like everyone's busy, ready to write.

19 So, let's talk about concluding remarks on this.
20 We got a lot to absorb this morning and I want to thank
21 everyone for their comments.

22 You know, the reality, as I've said, is staff's
23 put a lot of work in, there's a very limited time
24 between now and when this is going to be done.

25 Certainly, we appreciate comments from people to help us

1 sharpen these.

2 One of the things that I think is important,
3 maybe reflecting on some of the comments today, is that
4 the Energy Commission's role in R&D, we always have to
5 look at how that fits into a much broader context.

6 You know, there are certainly federal funds,
7 there's EPRI, there's any number of things and we have
8 our own unique niche that we're trying to deal with.

9 And in that construct we are really driven by
10 where our competencies are and by basically a State
11 policy framework.

12 So that, you know, I think there was an allusion
13 to a report that we co-funded, but the reality is that
14 our contractors don't set State policy. The Governor
15 does, the Legislature does, certainly, the commissions
16 do.

17 You know, and as part of that we have to focus
18 on the things that we can do, which tend to be not a lot
19 of hardware stuff, there's just not a lot of money for
20 any of the big demos on carbon sequestration, or
21 whatever.

22 But we have to really look on what we really
23 need in California, you know, and that tends to be what
24 types of resources or issues the State is facing.

25 My classic example is geothermal. I remember

1 talking to people on a federal who say that's very
2 insignificant to the U.S. It's very, very significant
3 in California, so that our dollars have to be focused on
4 those sorts of things. We have very unique air quality
5 issues, very unique renewable integration issues that no
6 one else in this country is facing, certainly is facing
7 elsewhere.

8 And so we really have to focus on those. And by
9 policy we have a very high emphasis on energy efficiency
10 as part of our future so that, again, it's very
11 important that we spent our dollars there, that we
12 certainly not overlap with what's going on more in the
13 federal or EPRI level where, you know, again, certainly,
14 in the first Brown administrative I would say the
15 emphasis was much less on energy efficiency and
16 renewables on the Department of Energy, or EPRI, or the
17 utilities.

18 So, again, that's where our dollars go and we
19 have to figure out how to maximize the value of that
20 since obviously the State has -- you know, we need
21 innovation but, also, these are very tough times budget-
22 wise.

23 You know, we have to be able to justify to the
24 Legislature, and to the ratepayers, ultimately, that
25 these dollars are well spent. That at a time when the

1 State is going through horrific cutbacks, you know, that
2 this has to be a real model of maximizing value going
3 forward.

4 COMMISSIONER PETERMAN: I'll just add that,
5 following up on the Chair's comments, I support and
6 continue to support this plan, including opportunities
7 across all the categories, not only for technologies,
8 but strategies, tools, analysis that can get you to
9 those goals, as well.

10 And so when you're looking through the
11 strategies and the plan think about what can fit in that
12 broader set of contexts.

13 And, indeed, this is an incredibly important
14 program. The research the State has done to date, the
15 public interest research has been very important. I
16 think it's had a lot of payoffs. We want to continue
17 with that under the EPIC mission.

18 And looking forward to your comments; I thought
19 your comments today were very focused. It shows you
20 paid attention to the plan and reviewed the draft, and
21 that was very appreciated.

22 And I look forward to the comments we'll receive
23 from you, filed on Tuesday. Thank you.

24 COMMISSIONER MC ALLISTER: I just want to
25 reiterate a job well done to everybody, and thank Chair

1 Weisenmiller and Commissioner Peterman for their
2 leadership on this.

3 And then, again, just point out that energy
4 efficiency -- you know, even if an idea doesn't get
5 funded I mean I think staff does such a good job of
6 keeping on point and knowing what the sort of cutting
7 edge looks like that that benefits the Commission and
8 our programs in a much more near-term way, I think, and
9 could do so even more.

10 And I think on the energy efficiency side
11 there's actually stuff in this plan that I'm going to be
12 on the edge of my seat, you know, seeing the results of.
13 And I think, you know, working with Laurie and her team
14 on this could actually benefit our programs, just in
15 ideation, actually, in the near term.

16 Particularly, I'm thinking AB758, but there are
17 other opportunities. So, I think this plan really lays
18 out a lot of good stuff in the future and I'm looking
19 forward to the implementation and results. So, thanks.

20 MS. TEN HOPE: Could I just make a couple of
21 quick comments?

22 I first want to just take a minute and
23 acknowledge the team and clarify that there are two
24 divisions that are involved in putting this plan
25 together, the Research & Development Division, and also

1 Energy Efficiency & Renewable Division, particularly the
2 Renewable Energy Office.

3 And so it's been a nice collaboration across
4 both divisions.

5 And I just want to acknowledge Erik and Pam that
6 you heard from today, but also Sherrill Neidick. And so
7 people know you, just raise your hand; Michael Sokol,
8 Silas Bauer, Jamie Patterson, and Beth Chambers, and Joe
9 O'Hagan, who's stepped away, so he's not here.

10 But, you know, feel free to talk to these
11 individuals about the plan as well, and some of the
12 initiatives that went into it.

13 And now we're going to call you out. There he
14 is, okay.

15 And I just wanted to mention that the
16 presentation is out and it includes this budget right
17 here, which is not in the Investment Plan online.

18 If I could underscore what the Chair and
19 Commissioner said our -- you know, several people have
20 talked about this as a menu. We are going to -- we've
21 heard that and, basically, sort of know that ourselves,
22 that we need to signal in the plan that's submitted the
23 priorities.

24 So, you know, if you can identify, you know,
25 your top three or the bottom three, you know, we're

1 going to be doing that in the next plan.

2 Oh, I'm sorry, I missed Garry O'Neil. How could
3 I do that? So, the last EPIC member that -- thank you,
4 Pam.

5 And Garry's made really significant
6 contributions, so I apologize for not mentioning you.

7 And, finally, I think I said the three things,
8 the presentation, the team, and focused comments would
9 be really helpful.

10 CHAIRPERSON WEISENMILLER: Yeah and again, I
11 think you should assume you don't have to repeat your
12 prior comments.

13 MS. TEN HOPE: Correct.

14 CHAIRPERSON WEISENMILLER: But, you know,
15 certainly in terms of the more specific you can be, the
16 better, you know, as an edit as opposed to something
17 that's fairly general that the staff won't be able to
18 respond to quickly.

19 But, certainly, all comments are appreciated.

20 So, this meeting's adjourned. Thanks, thanks
21 again.

22 (Whereupon, at 1:17 p.m., the
23 Workshop was adjourned.)

24 --oOo--

25